

The Dome III – Chapter 31

“I meant to tell you, Cal that I ran across a Lipizzaner stud and 3 mares. There are so few around the world, I decided to buy them. I mean, who else has radiation proof barns?”

“Expensive?”

“Don’t ask.”

“I just did; how much?”

“The stallion was 18 ounces and the mares 12 ounces.”

“Ounces of what?”

“Gold of course. You can’t even buy the tack for 18 ounces of silver.”

“Did you get tack, too?”

“Yeah, but its plain black; I got everything too, saddle bags, pommel bags, breast collars, second cinches and rifle scabbards.”

“So you spent 30 ounces of gold?”

“No, I spend 54 ounces of gold. The mares were 12 ounces each, not 12 ounces altogether.”

“Are they with foal?”

“Yeah, out of a different stud. That’s why they cost so much.”

“Gold must be running \$3,000 or more per ounce. You paid \$162,000 for 4 horses?”

“That was before the war and gold was running about \$1,800 an ounce so I only paid \$97,200, including the tack.”

“Regardless of the price of gold... 54 ounces?”

“I had more than that when we got married.”

“Yes, you did. We have Barbs, Andalusians and Lipizzaner horses plus close to 200 Quarter Horse stock horses. Are you done yet?”

“We don’t have any draft or dray horses. We don’t have any carriage horses.”

“We don’t have carriages either nor horse drawn farm equipment.”

“We will probably end up with both. Do you really think you can find 5 large John Deere 4 wheel drive tractors and 5 10-bottom pull type plows in Arizona?”

“Hank is looking.”

“I think that it is likely that the large 4 wheel drive John Deere tractors, the 10-bottom plows, large tandem disk harrows and such are most likely special order from the Waterloo Works or other plants.”

“Why other plants?”

“They built the tractors in Waterloo. The corporate headquarters was in Moline, Illinois.”

“Past tense?”

“You said the strike was counter-value. John Deere is one of the largest, if not the largest, farm equipment manufacturers. Waterloo would be a logical counter-value target.”

“So where do we get draft horses?”

“From the Amish.”

“And carriage horses?”

“From a Morgan breeder.”

“Are there any Amish in Arizona?”

“I don’t really know. There should be Morgan breeders if we can find them. We’d probably have to ask the breeder where find carriages. We could get hunter or racing type Quarter horses to pull carriages if all else fails.”

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Yes, there is an Amish community in Phoenix. They mostly live in a couple of little pockets of the area known as “Sunnyslope” and are for the most part just snowbirds, here for the winter just like so many other people. I do not think there are any old order Amish but they are Amish none the less. They wear the traditional clothing and do not own cars, and you will see them riding bicycles or walking. They take cabs if they need to go far. Their housing is provided by Mennonites who own a small trailer park in “Sunnyslope” and a street of houses, they are equipped with cooling, heating and lighting but the Amish are just renting these homes for the winter and it is acceptable to them to use the amenities. Some of them are here for health reasons as well.

Unfortunately there is no true Amish society in Arizona, the group that lives here does not farm or really truly follow the Amish ways. Some are very wealthy. They just find ways to operate their business that seem to edge around their rules.

The answer was probably no because the war happened on June 22, 2020. Snowbirds generally are in Phoenix from about October through April or May.

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Andy, Sheree and the kids showed up about 30 hours after the radio call. Ginger had a million questions starting with what happened to Alice followed by what happened to the farm and then questions about the Ozarks. The travel trailer and the Suburban were packed with clothes, weapons, ammo, mementos and food. Andy, Sheree and the kids were exhausted and after a quick bite to eat, showered and fell into bed. Despite her curiosity, Ginger held off asking those questions until they got caught up on their rest.

“Mom held on after Dad’s death for a long time Ginger, but every day that passed, she seemed to withdraw just a little more. By January of 2020, she seemed to come out of it finally and was more her old self. When the announcements of missiles in the air came, we believe she had a stroke. She really needed to be in a hospital in St. Louis but that was out of the question and the five of us finished packing the travel trailer, filled the fuel trailer and headed for a piece of property I bought in the Ozarks with a good cave that we’d pre-stocked.

“She passed on the trip down and we buried her on the Ozark property. Anyway, people were running around like chickens with their heads cut off and we were lucky to make it to the property. We didn’t get a lot of radiation in the area, just lucky I guess, and we just hunkered down until the ham net indicated we could probably make it here without a lot of problems. I heard that the farm got a fairly large dose of radiation, probably from an off target warhead aimed at St. Louis.

“That pretty much left your ranch as our alternate bug out location. Since they were hitting cities instead of military installations, I speculated that Phoenix and Tucson were likely targets. With that in mind, we waited until we could make the trip without running into high radiation areas. That meant circumventing cities like Albuquerque, etc. Once we had a route laid out, I got on 40 meters and tried to raise you. One day I got lucky and talked to some guy named Ramón who said he was your Chief of Security. I guess you know what happened after that.

“I thought you grew alfalfa, not livestock”

“Andy, Alfalfa was our principal crop and generated over \$15 million a year. We were prepared to convert to wheat, corn, oats, barley, beans and rice. We’ve been accumulating heirloom seeds for all those crops and the plan is to convert a major portion of our

crops from alfalfa to food crops. That's going to be more labor intensive and our hope was to get the Eloy survivors to help in the production.

"So far we've had 2 attempts to take the food by force of arms and we're uncertain whether we can accomplish that. I assume you noticed the canal around the property to discourage attempts to steal food. The outer wall of the berm is coated in sodium bentonite which becomes slimy when wet. Our 8 guard towers can turn on the water and make the berm impenetrable."

"Fixed fortifications are monuments to man's stupidity."

"George Smith Patton, Junior. Patton was wrong, in a way. The German's couldn't get through the Maginot Line so they simply went around it. France had completed their portion of the defensive barrier but Belgium hadn't. The German's attacked Belgium and punched through in no time at all.

"The World War II German invasion plan of 1940 was designed to deal with the line. A decoy force sat opposite the line while a second Army Group cut through the Low Countries of Belgium and the Netherlands, as well as through the Ardennes Forest, which lay north of the main French defenses. Thus the Germans were able to avoid a direct assault on the Maginot Line by violating the neutrality of Belgium, Luxembourg and the Netherlands. Attacking on 10 May, German forces were well into France within five days and they continued to advance until 24 May, when they stopped near Dunkirk."

"How long is the berm?"

"It's approximately 10 miles long. We have 8 guard towers and the greatest distance between any of the towers is 1½ miles. The towers are equipped with an Mk 19 Mod 3, an M2A1 and a M240B. They also contain Javelin missiles, M136 AT-4 and M72A7 LAW rockets. The staff also has their individual weapons as a backup and a reproduction 1877 Bulldog Gatling Gun in .45-70."

"Hand grenades... that sort of thing."

"Yes, we have a whole lot and a wide assortment of 40mm grenades for the launchers on the H&K rifles."

"Tanks?"

"Nope. But we do have 4 LAV-25s in various configurations."

"They have the 25mm chain gun?"

"All but one. It's equipped with Stinger missiles and a General Dynamics GAU-12 Equalizer 25 mm 5-barreled Gatling cannon. We were lucky to find that version because the Marine Corps discontinued use of the LAV-25AD at some time in the past."

“You have an armed camp!”

“Andy, you have no idea how well armed this ranch is.”

“Ok, I believe you, but why?”

“Have you ever heard expression, *would you rather have it and not need it, or need it and not have it?*”

“Certainly.”

“The bottom line is we have everything we could think of. Your sister even added a Lipizzaner Stallion and 3 mares with foal, out of a different stud. We’re running just short of 300 head of horses, 120 head of Black Angus cows with 2 additional non-related Bulls and 120 head of sows with 2 additional non-related boars.”

“What kind of horses?”

“We have Quarter Horse stock horses, Moroccan Barbs, Andalusians and 4 Lipizzaner. We need carriage horses and Draft horses according to Ginger.”

“Why?”

“We have 6 sections of ground. Ginger suggested that we’d be unlikely to find the large John Deere 4 wheel drive tractors, 10-bottom plows, tandem disc harrows and the like.”

“She’s probably right. They hit Waterloo and the Quad Cities.”

“How do you know that?”

“We got our news from the same place you probably do, the ham net. Most everything north of I-70 has snow and the further north you go, the deeper it becomes.”

“So, do you think we’ll need to use horses to farm?”

“Let’s just say I wouldn’t be surprised. Do you have any idea where to get carriage horses?”

“Frankly no.”

“The Morgan is a great carriage horse but so is the Quarter Horse and you probably have enough due to your breeding program to select several to train to both harness and saddle. As far as draft horses, I’d recommend Percheron or Belgians simply because of availability.”

“Ginger and I discussed that and there aren’t any Amish in Arizona except for snow-birds.”

“That’s one point against Belgians with the other being there are but a few Belgian breeders in the whole country. There are far more Percheron breeders.”

“Farming with horses would seem to me to be a massive undertaking.”

“Oh, it would be. The typical horse farmer in the Midwest was lucky to farm a quarter-section with a single team. The Amish generally get together with all their teams and do one farm at a time. Once you get the gardens plowed, I believe that you could get by just disking them. And, assuming you plant alfalfa you also need to include timothy for draft horses. If you use a single bottom walking plow, your quarter horses can pull them once they’re trained to harness. That way, you won’t have to look for draft horses.”

“Andy seemed to think that we could get by with the quarter horses we have if we train them to harness. He said something about a single bottom walking plow.”

“You’ve seen them in movies and probably on TV show reruns. The guy walking behind his horse or team of 2 horses plowing one furrow at a time. We have enough of the stock Quarter Horses that our only limitation would be how many plows we could find.”

“Correct me if I’m wrong. You said *anything I missed can be fabricated*.”

“I said that, yes.”

“Please fabricate us 90 single bottom walking plows.”

“Ok, will do. It will take a while but you’ll have your single bottom walking plows.”

“Hank I need a favor.”

“What can I do for you Ginger?”

“I take it you didn’t find any large John Deere 4 wheel drive tractors.”

“We didn’t; I assume that they’re special order for places like Arizona.”

“Did you find any plows?”

“We found lots of plows but no pull type 10-bottom plows.”

“Good, here’s what I’d like. Bring back all the plows you can find, regardless of size. We have all that equipment in the machine shed and should be able to remove the coulter,

moldboard and share and fabricate single bottom walking plows and use our Quarter Horses to pull them.”

“The Quarter Horses are trained to saddle, not harness.”

“There should be plenty of time to train them while you’re fabricating 90 single bottom walking plows.”

“We don’t have harnesses. Don’t you think those would be easier to find than the John Deere tractors or the tandem disk harrows or the 10-bottom plows?”

“Why are you doing this?”

“My brother Andy put a bug in his ear about plowing with horses because the John Deere Tractor works in Waterloo, Iowa was one of the counter-value targets, as was the corporate headquarters in Moline when they hit the Quad Cities. Oh, there are actually 5 cities, not 4; Davenport, Bettendorf, Rock Island, Moline and East Moline. Anyway, I told Cal I’d see to it we had 90 single bottom walking plows. I had it mind that we could disassemble factory made plows and use the share, moldboard and coulter to make single bottom plow and use hard wood for handles. What do you think?”

“Do you know anything about oxen?”

“Steers, right?”

“Right. We have 2 seasons worth of steers and heifers. They’re stronger and last longer than a horse. We’d just have to get a different harness or fabricate our own out of nylon, Kevlar or whatever we could find. If we made our own, each harness could be fabricated for a specific ox.

“Working oxen are taught to respond to the signals of the teamster or ox-driver. These signals are given by verbal command and body language, reinforced by a goad, whip or a long pole. In pre-industrial times, most teamsters were known for their loud voices and forthright language.

“Verbal commands for draft animals vary widely throughout the world. In North America, the most common commands are:

Back: back up

Gee: turn to the right

Get up (also giddyup or giddyap, contractions for "get thee up" or "get ye up"): go

Haw: turn to the left

Whoa: stop

“In the New England tradition, young castrated cattle selected for draft are known as working steers and are painstakingly trained from a young age. Their teamster makes or

buys as many as a dozen yokes of different sizes for each animal as it grows. The steers are normally considered fully trained at the age of four and only then become known as oxen. In other traditions, adult cattle with little or no prior human conditioning are often yoked and trained as oxen. This is done for economy, as it is easier to let a calf be raised by its mother, and for lack of adequate methods for housing and feeding young calves.

“Heifers can be used too so no one could accuse us of sexual discrimination. We’ll have to fashion the yokes in large quantities, but we can do that if we can find a pattern in an agricultural museum. Give me the ok and we can start immediately gathering plows and harness materials.”

“Ok Hank, do it.”

“Cal, we’re in the process of gathering the materials for the walking plows and harnesses. However, I think we’ll use oxen instead of horses. We may train some horses to harness if we can come up with some carriages. I’m speculating here, but let’s assume 9 months to a year before we can start plowing. That custom guy you used had 5 10-bottom plows. If we have enough material we might be able to make as many as 100 1-bottom walking plows and cut the plowing time.”

“By how much?”

“That I don’t know, maybe by $\frac{1}{4}$ to $\frac{1}{3}$. We’ll also have to come up with single disk harrows and we might be able to get by with 25 of those depending on the width of a single gang. I’ll let you know when I know. Oh, Hank said he came up empty on heavy John Deere 4 wheel drive tractors, 10-bottom pull plows and large tandem disk harrows.”

“What about the spring tooth harrows or the drag harrows?”

“I think they’re actually called spike harrows. We may be able to actually get spike harrows or fashion them if we can get the spikes. Spring tooth harrows are outdated and rarely used these days.”

“What kind of wood for the handles?”

“Ash if we can find it; otherwise oak.”

“How are you going to identify ash or oak trees? They may be common in Missouri, but I doubt there are many in Arizona.”

“I’ll let you in on a little secret; I’m not going to try and identify the trees. How many Vaqueros do we employ that have lived in Arizona since before it became part of the United States?”

“Good plan. Where are you going to get coulters, shares and moldboards for the plows?”

“Around. We’ll probably start in Tucson and the vicinity. After, we can try the outskirts of Phoenix; probably on the west side of the metropolitan area.”

“You have something going and you aren’t going to tell me about it, are you?”

“It’s no big deal. Smaller plows are available and we can dismantle them and use one bottom to fabricate a 1 bottom horse or oxen drawn plow. Tandem disk harrows are available and we can use a single gang. The same should apply to spike harrows. That’s why we have a very well stocked machine shed that includes welders, rod, wire, gasses, a metal lathe, wood lathe, milling machine, metal stocks including square and round tubing and sheet goods. Hank and I probably missed something that we’ll end up salvaging like the plows, disks and drags. My only concern is how tough the beef will become if we use them as oxen.”

“They’ll probably make an additive for ground beef. I think I’d better get with Andy and ask him to fill me in on what it’s like farming in the Midwest. Maybe I can get up to speed and you won’t make me feel like a dummy.”

“You’re no dummy Cal; you married me didn’t you?”

“What if I’d been too shy to offer to buy you a drink?”

“Now, that would have been dumb. I’d noticed you and was hoping you’d ask to buy me a drink. I don’t really know if I’d have asked you, though. That’s awfully forward.”

“Right. You sure went along after I asked.”

“Naturally, you asked.”

“And the bedroom antics that followed?”

“You were a widower and I was a divorcée. It’s not like we were teenage virgins.”

“And, we both remembered how!”

“It’s not something one tends to forget. Then it turned out that you were well off and that was the frosting on the cake because you could support us rather than my supporting us.”

“Would you have done that; supported us?”

“I don’t know because the question never came up. But, when I gave you advice, you had the good sense to listen. We’ve done well for ourselves and have 3 wonderful chil-

dren. I hadn't planned on them being home schooled but they're at least 1 grade and possibly 2 ahead of where they'd be if they were in public school. Plus they're learning life skills that will be extremely important in the coming days, weeks, months and years."

"You know I had trouble telling the twins apart don't you?"

"I fixed that with the name tags initially and later by styling their hair differently."

"Oh, I thought that I was just getting better at identifying them."

"They are, quite literally, identical so you'd still be guessing."

"What are we going to do when they grow up and start looking for friends of the opposite sex?"

"We have at least 10 years to figure that out. Now, presuming we use oxen rather than horses in the fields, we'll probably start by plowing the garden to educate the farm hands on using the walk behind plows. Next, I think we should plow the 540 and the other section we'll be using for permanent pasture. By then, all of the plows, disks and drags should be fabricated and the oxen well trained. I suggest we plow one section at a time, disk and drag it and prepare it for planting. When the sun finally peeks through the clouds, we can give some thought to planting."

"What would you think about Andy working with Hank to manage the farming? Hank could be in charge of the livestock and Andy in charge of the field crops."

"Good idea, I guess I don't have to talk you into it."

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First, I talked to Andy about farming the ground and then talked to Hank about managing the livestock, training steers into oxen and training a few horses to harness to pull carriages assuming we found some. Both were agreeable but Andy cautioned me that it would be a tremendous undertaking to plow, disk and drag ~3,740 acres. That's the gross, which should be reduced by a 20' wide by ten mile berm, 20 foot wide canal and the space the fences took. I used a calculator to approximate the acreage the berm, canal and fences took and multiplied 50 feet by 52,800 feet getting 2,640,000 square feet or 60 acres. So, call it 3,680 acres of useable land.

Now, 3,680 divided by 24 (6 times 4) equals $153\frac{1}{3}$ acres of useable land per quarter section because we had a single homestead for 6 sections of land and it was included in the 100 acres missing from the one section that was devoted to gardens and the homestead. I hope you understand because I'm going to assume you do. In California's Central Valley, some of those cotton fields run 6,400 acres and don't have any fences.

After 90 days, they had the first 40 plows constructed and Hank said the next 60 would be done in another 90 days. The disks would take about 45 days and the drags about 30 days. Doesn't time fly when you're having fun (not!). Ninety times 2 plus 45 plus 30 equals 255 days, but who is counting? Hank had some of his hands constructing oxen yokes based on a single yoke they found in a museum, scaling it both up and down while others were training a few Quarter horses to harness for when they found carriages.

In this case, time was on our side because the sky wasn't clearing very fast at all. During the winter months the snow extended down past the Missouri-Arkansas border but was melting back to the I-70 corridor in the 'warmer' months. The Missouri-Arkansas is about even with the southern Oklahoma panhandle border with Texas, $36^{\circ}30' N$.

And thus it began; the plowing, disking, dragging and getting the soil prepared for crops. Weeds came up so there must have been some sunlight hitting the ground, even if the appearance was otherwise. We planted grass, a mixture that Andy came up with. We also planted alfalfa and got 2 meager cuttings per year. Any alfalfa is better than no alfalfa.

Most of our electricity came from the wind turbines with some supplemental generator time used to recharge the battery banks. The only garden produced was in the greenhouse and it was a continuous process. Between the livestock butchered, the eggs from the flock of chickens, milk from dairy cows, the fish in the tanks in the barn, we had enough to eat.

It was a lonely existence and we had no visitors. I figured that was better than having people show up with firearms and things we didn't take from Camp Navajo. Eleven years after the war, on July 4, 2031 the sun peeked through the clouds for the first time.

James was 19 and the twins 18. They had all the firearms purchased for them and we should have called them Deadeye and Company. There wasn't a weapon of any description in our expansive armory that they weren't totally familiar with and competent with. Each had 'a special friend' but it was only friendship at this stage of the game.

Jim was seeing the daughter of one of the Vaqueros. I learned, much to my surprise, that she was Pima. I don't have anything against Indians, but I didn't know Hank had hired one. Kathy was seeing a 9th generation Mexican and her sister Jen was seeing a 10th generation Mexican. That was about all they have in their age range to choose from. The young lady and young gentlemen were just that, a Lady and Gentlemen.

Ladies and Gentlemen and Children of ages, it is my pleasure to introduce the Flying Wallendas... (Not these days... *The Greatest Show on Earth*... Kind of sounds like what's his name, Moses.)

We had salvaged over the ten or so years after we came out of the shelter and all the fuels were topped off with large supplies of reserve fuels. Ramón and some of his staff had made a run to Houston to Products Research, Inc. and brought back a truckload of PRI-D and PRI-G in 5 gallon pails and 1 gallon jugs. I know it's supposed to only have a shelf life of 3 years, but to stall it going bad, every bit of fuel on hand was stabilized and we repeated that yearly.

We found biodiesel equipment but no sodium hydroxide and no methyl alcohol or instructions on how to make biodiesel with ethyl alcohol. It didn't matter because we were using very little diesel fuel and almost no gasoline. Our farm tractors saw almost no use. Beyond periodically starting and running them for 15 minutes or so about twice a month, they sat there on blocks to prevent tire rot. We had extra tires, but have you ever changed a tractor tire?

Ours had the recommended amount of ReSeal and the tires were rotated when the engines were fired up. Unfortunately not all of our tractors were 4 wheel drive and on those, we had to turn the front tires manually at about the same rate the engine turned the rear tires. ReSeal is a liquid inserted into the tire by injecting the recommended amount through the valve stem and as the wheels rotate, the inside of the tire is constantly recoated with the sealer. I love that 961 diesel and if it ain't permanently broke, why replace it?

My father inherited the tractor and 3 sections from my grandfather. He didn't want to grow cotton but kept the land. Instead, he established a Ready Mix company in Phoenix and later got into selling class 3 firearms. What I didn't mention about the AR-18 was that the receiver was stamped metal and the weapon developed a nickname, 'the wid-owmaker'. If it's not a short stroke gas piston, you don't want it.

When the sky cleared, several things changed. First and foremost, we planted a large outside garden, 30 acres. Second, we planted alfalfa, a whole section (we didn't trust the growing season). We also planted wheat, corn, oats, beans, rice and barley; one

half section each of corn, oats and barley and one quarter section of hard red wheat, one quarter section of durum wheat and one quarter section of soft white wheat and one quarter section of long grain white rice. Two and one half sections and the tractors were finally off the blocks. Beans were planted in one of the remaining sections. Hank had found a self-propelled combine with a grain head and a corn head. We didn't find a row crop cultivator and were forced to go with no till. The combine had screens of every size imaginable. I suspected that we could use that combine to harvest most of our crops.

"We need wagons."

"Then, go find some. But don't bother to look in the area of Dewey-Humboldt."

"You think?"

"Well, they said 15 megatons. You'd better take all 4 LAVs and 3 Hummers. You'll need either a flatbed or a cargo van so take both."

"Drive the LAVs or haul them on the modified flatbeds?"

"Haul them. Ramón's people will handle the LAVs and Hummers."

About the modified flatbeds... About 3 years back we had a bunch of lowboys and flatbeds. They loaded the LAVs on a lowboy but had trouble getting them off. So, Hank came to me with an idea.

"Cal, we're having one hell of a time unloading the LAVs. A flatbed would work well if we had a loading dock. When we're away from home, we might not have time to find a loading dock. What would you think of our modifying 2 of the flatbeds and lowering them to the height of the rear portion of the lowboys?"

"How would that help?"

"We load the LAVs with a ramp and when they're pulled forward, everything is fine. The problem seems to be getting them back over the rear wheel hump. What I propose to do is lower the flatbed to the same height as the lowboy rear. On the front, we can determine how much to leave to insure a 180° of motion, or close. We cut the flatbed at that point and level it with the rear hump. Next, we use some of the steel we have to create supports connecting the front and rear right at the cut. When we're done, we can close the hole with steel plate. We can fabricate a second set of ramps for the second modified flatbed.

"I don't know exactly how fast we can unload, but it has to be faster than the lowboy or flatbed. I supposed it would be something similar to a mechanical folding gooseneck in application."

“Why don’t you just find 2 mechanical folding goosenecks?”

“We’ve looked high and low and haven’t found 1 let alone 2.”

“Ok, Burger King.”

“Huh?”

“Have it your way.”

“I still don’t get it.”

“They had an advertising jingle that went something like this:

(Chorus) Have it your way, have it your way! Have it your way at Burger King!

*Hold the pickles, hold the lettuce;
special orders don't upset us.
All we ask is that you let us serve it your way...*

*We can serve your broiled beef Whopper
fresh with everything on top.
Anyway you think is proper; have it your way...*

(Chorus) Have it your way, have it your way! At Burger King, eat at Burger King!

“Do you remember what Charlie told Maverick?”

“Don’t give up your day job?”

“Yep.”

I wonder if Hank was being sarcastic. No I don’t, I know he was being sarcastic. I looked at some pictures I had of various types of semi-trailers on my computer and I couldn’t see the problem getting an LAV off a lowboy. Hank was our longest term employee and if he said it was a problem, who was I to argue? It wasn’t like we needed any materials. Ginger, Hank and Ramón had seen to that. As soon as the Lipizzaners foaled and the mare went into estrous, Ginger rebred all 3 mares. At the moment, we have a total of 1 Stallion, 6 mares, 3 fillies and 3 geldings. She will let them rest every other estrous cycle from now on. We’ve gained 3 mares, 3 fillies and 3 colts that we gelded. One of the 3 mares seems to only throw colts while the other 2 seem to throw fillies.

I watched as they loaded the LAVs and they were easy to load. I’ll have to wait until they return to see how easy they are to unload. One thing I noted was that the vehicles were backed onto the modified trailer. The LAV-25 is 2.5 meters wide (8.2 feet) and there were curbs on the loading ramps and the beds of the modified trailers. The curbs

were tall enough that the driver could feel when he was drifting off track. He couldn't get off track on the trailers at all.

Ramón's people obviously had practiced the loading and unloading until they could practically do it with their eyes closed. Had I been thinking, I'd have probably specified flatbeds to haul the wagons. On the other hand, they might find unassembled wagons at an implement dealer's location and could load those in the cargo van. The main thing was to get the tires. Many dealers' provided used aircraft tires because aircraft tires are typically retired due to flat spots rather than age. They are also of heavy duty construction. Used as a wagon tire, they could conceivably last for years. I guess I should have mentioned checking Sky Harbor for tires.

As TOM says, wish in one hand and spit in the other. I wonder if he caught the war-head. *Just in Case*, I'd better remind Ramón. Speaking of Justin, I wonder why they never got married. Maybe they were 'special friends'. Maybe I should password protect some of the stories. When I set James down to have 'the talk', he asked what I needed to know. Kids! I told him I was just checking. For crying out loud, they were raised on a farm with well over 400 head of livestock. What did I need to know? What could I do, they already had all of their guns. Everyone age 18 and up went armed except when they were sleeping or in the shower/bath. Even then, weapons were within arm's reach. The only ammunition expended was in the semi-weekly practice session where everyone qualified with his/her weapons. Yes, all of them.

About an hour after they left and probably just as they arrived on the outskirts of Phoenix my stomach began to bother me again. Because I'd stopped carrying the Pepcid, I had to go to the dome and find my open bottle or open a new bottle. I found the open bottle in the medicine chest and took 2. It didn't help so I took a generic Prilosec. That didn't work either.

"Ginger, about an hour ago I took 2 Pepcid because my stomach was bothering me. When that didn't work I took a generic Prilosec, about 30 minutes ago. Something is wrong and I can't put my finger on it."

"You don't think it has anything to do with this being Andy's first trip off the ranch do you?"

"It could be but shouldn't. Could you see if you can raise them on any of the radios?"

"No problem. This is very unlike Andy. He's a stickler for maintaining radio contact."

"Sorry Cal, I couldn't raise them. Now, I'm getting worried. Maybe we should go to Yellow Alert. What were they shopping for?"

"Farm wagons. Hank said they were more likely to find them in Phoenix."

“In that, he could be right. I’ll call a Yellow Alert and roust out the remaining Security Force and all the farm hands available.”

“I hate to call an alert that could last for hours.”

“I could last for only minutes.”

“True; I’d opt on the side of caution.”

“Me too.”

“This is a Yellow Alert; report to your assigned positions.

“I repeat, this is Yellow Alert report to your assigned positions.”

“What’s up?”

“We’ve lost radio contact with the away teams.”

“Did you try all the radios?”

“Across the board, ham, business and CB”

“This is not good. Andy was skeptical about this trip.”

“I was skeptical about this trip, too, Sheree. We’ll give it an hour dispatch and a backup force if we haven’t established contact.

“Ranch, this is Ramón. We’re about 20 minutes out with pedal to the metal. We have one minor WIA and we got what we were looking for.”

“Roger, trouble?”

“I’ll say. I suggest you raise the alert level. We’ve lost them but they can’t be far behind.”

“We’re already at Yellow.”

“Go to Red.”

“Roger. Cal out.”

“Red Alert. Red Alert. The away teams are inbound with one minor WIA.”

“What’s the difference between Yellow Alert and Red Alert?”

“Yellow Alert means the weapons are in Condition 3, chamber empty, full magazine in place, hammer down. Red Alert means the weapons are in Condition 1, a round chambered, full magazine in place, hammer cocked, safety on. At first sight of any opposing force, we go to condition 0, safety off.”

“Define minor WIA.”

“Non-life threatening; typically a graze, the wounded individual took a bullet in their body armor plate. Both hurt like the dickens but the wounded individual can still fight. The bullet in the plate is probably more disabling than a graze. The graze will require a combat bandage at most. A bullet in a plate causes a blunt trauma injury behind the plate and extensive bruising. Body armor won’t stop large caliber rounds like .408 CheyTac or .50BMG Sheree.”

“Attention! They’re pulling off the freeway.”

“Roger. Everyone go to condition zero but don’t shoot the friendlies. Get the gate open and standby to close it and block it. I’ll cut the power after it’s closed. Someone fire up the dozer.”

The practices had paid off when we finally had the possibility of trouble at the ranch. Everyone moved like a precision, well-oiled machine. Just as the away teams finished pulling through the gate, the challenge went up a notch.

“I have multiple vehicles pulling off the freeway headed here.”

“Get those posts in place behind the gate and move the dozer up. How many?”

“I don’t know, maybe 25 pickups with people in the beds.”

“Standby to take the pickups out with rockets or grenades once they show their intentions.”

“Who was wounded, Ramón?”

“Me. I took a .30-30 round in the plate. Man, does it hurt.”

“What’s the story with the people coming?”

“We were just finishing up loading tires at Sky Harbor for the wagons we found in several places. Apparently we were spotted at the first implement dealer’s and we picked up a tail. By the time we made to the second place, the number of vehicles was probably up to 5, possibly more. They were holding back, mostly observing. When we reached the third dealer’s there were probably a dozen ‘abandoned’ pickups sitting around. Add that dozen to the 5 or 6 and we had approximately 18 vehicles with as many as 6 individuals per vehicle.

“The problem was that we found very few wagon tires. Hank suggested checking out Sky Harbor for used aircraft tires. We hit the motherload, ending up with 8 tires per wagon. We packed it up and started to head home when they opened fire. I don’t know where they came from but there must have been 50 to 60 vehicles trying to block us and engage us. We hadn’t unloaded the LAVs because, initially, Phoenix appeared to be a ghost town.

“The LAVs work just fine even if they’re loaded on a trailer and we began to whittle them down. Someone with what looked like a Winchester 94 popped a shot my in direction; he hit me center mass, right in my plate, knocking me on my butt. When there was a lull in the fighting, I gave the order to bug out. We caught them off guard and got clear of them heading back home. I’m not sure but I think some of those people were from Eloy.”

“If that’s the case, they knew right where to come.”

“I think so. Look, I’ve got to join my troops in one of the gate towers.”

“I’ll get in the other.”

“You really like that HK417, don’t you?”

“Yes, but for work this close, I also brought my 590A1.”

“I’ll assume we’re in trouble if you give the command ‘fix bayonets’.”

“I gave orders to take the vehicles out with rockets or grenades if they’re hostile.”

“Good.”

The M2A1 and M240Bs opened up. It was probably the shortest battle in history. I didn’t hear any explosions and assumed they didn’t use the Mk 19s or any rockets or grenades. Before any of our people exposed themselves, the attackers each got another burst of 7.62x51mm. They were all dead and we gained 24 pickups and their contents which consisted mainly of liquor.

“Who was wounded?”

“Ramón took a .30-30 in his plate.”

“Oh, ouch.”

“Yep. But any gun battle you can walk away from is a victory. He said some of the people were from Eloy.”

“What were they doing in Phoenix?”

“Salvaging, mainly liquor.”

“Why did they come here?”

“They were probably looking for food. At least Andy didn’t get hurt.”

“Sheree isn’t too happy about him going on that trip.”

“That’s family business, I’m not getting involved. Did you fit them all out with weapons?”

“Everything but large caliber rifles; otherwise they have what you and I have and so do Bob and Cindy.”

“How is the garden doing?”

“Not like before the war. I think the 30 acres will yield about what we got from 20 acres before.”

“We won’t build any reserves?”

“Probably not this year except for what was planted in the fields, especially the wheat’s, beans and rice. We can replace the corn, oats and barley although it’s going to be Scottish oatmeal not rolled oats.”

“Why can’t we have rolled oats?”

“What, you didn’t look it up on Wiki?”

“Nope.”

“The hull of the oat groat is very hard. In order to remove the hull and roll the oats, they have to be steamed.”

“I thought you said we could fabricate anything we needed. Why couldn’t you use a pressure cooker to steam the oats and run them through a press of some kind before they cool?”

“We’ll see. It’s not like we’re going run out of oatmeal any time soon.”

“Possibly. We got where we are by planning ahead.”

“Wait a minute; I bought a Schnitzer Manual Steel Flaker from Canning Pantry specifically for rolling grains. I completely forgot about that.”

“And we have several of the All American pressure cookers.

The Dome III – Chapter 33

“Ok, we’ll make rolled oats but we’ll probably do them last since they’ll take more time.”

The yield from the field crops were about like the garden produce, off maybe a third. We had fresh hay, COB and general livestock feed and filled all the bins. Extra COB was put in the Alfalfa pellet bin. Creating the COB was an experience because we had to crack the corn and barley separately and mix it into ratio that Hank had obtained from the elevator where we previously had purchased the COB.

When we butchered beef, we didn’t butcher any oxen, choosing instead milk cows with little to no production. This time we had the meat cutter cut T-bones and called the boneless club steaks New York Strips. Speaking of food, what had those attackers been living on since the war? Were there that few people left that there was enough food to feed 60 people or 60 families for 12 years? Canned food would have surely spoiled over a 12 year period. Most had a typical maximum shelf life of one year, if you were lucky.

Now the question became how many more attacks would we endure as we continued to replenish our food supplies? Those supplies that could be stored in pails with oxygen absorbers in sealed Mylar bags were long life products, but the canned goods weren’t. Would the atmosphere clear enough in another year so we could increase our crop yields? We had more questions than answers.

The most intriguing question was *where has the government been since the war?* Did they store that much food in Cheyenne Mountain? I was more than sure that they didn’t. I couldn’t quite picture a General or high ranking civilian salvaging from grocery stores or the President living on boiled beans and cornbread. Maybe the Administration had anticipated the war and stored enough Mountain House foods for 500 people for 15 years... Or was that where all the Mountain House foods had disappeared to way back when?

The war happened in 2020 during the height of Presidential campaigning, 4 months before the election. With the country bathed in radiation and seeming perpetual darkness they couldn’t have had an election, could they? There sure hadn’t been elections in 2024, 2028 or 2032.

Maybe the mountain took a direct hit with 25mT nuke. Cheyenne Mountain was designed for a 30 megaton nuclear explosion within 1.0 nm (1.2 mi; 1.9 km). The supposed retired SS-18 Mod 6 carried a single 20mT warhead and only 6 were deployed. Supposedly, all 6 had been retired in 2009. The Mod 1 carried either an 18mT or 25mT warhead. Maybe they pulled one of those from their strategic stockpile... Now I’m guessing.

“Cal, got a minute?”

“Sure Ramón, something special?”

“A suggestion; we’ve been putting 3 people in the towers. Since the Mk 19s are shorter range I’m suggestion we go to 2 people instead of 3. If the Mk 19 is needed, rather than M240B, the M240B gunner could switch to the Mk 19. If they get down to using those Gatling guns, there are still 2 people, one to crank and one to load.

“In the alternative we could have 2 when we’re not on alert and add the 3rd if an alert is called. Hank said he ended up being a little shorthanded now that were growing grain crops and those extra 8 people should eliminate that.”

“I’ll take it under advisement but for the moment you can cut back to 2.”

“He’s not shorthanded now that the crops are in.”

“Oh, I realize that but we’re in the process of storing wheat, corn, cracking and storing barley, storing the rice and the 3 types of beans. It turns out we have the equipment to produce rolled oats but it’s a time consuming process and the ladies are doing a lot of switching off on the flaker. We could use your 8 to pack the bulk items that don’t require extra handling. These field crops will get us back to a 30 year supply of the items in pails.”

“Do you only have one flaker?”

“Apparently; Ginger even forgot we had it. You do realize that we have a lot of food processing equipment, including spare parts for everything.”

“Where did she get the flaker?”

“She got it from Canning Pantry in a small burg north of Salt Lake City. I’d imagine Salt Lake City took a hit as a counter-value target and further north there’d still be ash from the Yellowstone eruption. Getting there might be a challenge.”

“Speaking of challenges, I did get those 60mm mortars and the same quantity of 81mm mortars. We took all those projectiles we could find.”

“My understanding is that those projectiles are called bombs.”

“I tend to think of them more as rockets. Either way, they certainly are deadly within their given range. We got the M252A1s which are lightweight versions like the M224A1s. While the M224A1 have a maximum effective range of 3,490 meters, the M252A1s have an effective range of 5,935 meters. The standard crew for the 60mm is 3 while the standard crew for the 81mm is 5.”

“Five people for 1 weapon? We don’t have enough people!”

"I was planning 2 people for both types using pre-positioned shells. We have 8 complete units of each size and I had it mind to put a pair at each tower."

"I know we planned for the worst but are there any reasons to believe we'll have to deal with the worst?"

"I really hope not Boss. With that said, who knows? And, where the hell are the county, state and federal governments?"

"I've asking myself the same question. We were prepared to shelter for long enough time for the fallout level to fall to 50mR/hr and all the years it for the sun to shine. Our levels of preparations were unusual to say the least. I can't imagine that very many preppers were able to prepare for that length of time. A couple of years would be highly probable for some. A dozen years, unlikely."

"Do we still need to be on the lookout for that guy you mentioned?"

"I doubt it. When you announced incoming missiles, Ginger called him. He said he was going to sit in his front yard and catch one."

"Where is he from?"

"Palmdale, California."

"What's there that would merit a warhead?"

"It's the home of Air Force Plant 42. There were several military aircraft manufacturers there including Lockheed's Skunk Works. The B-2 bombers are returned to Northrup factory there every 7 years to be refurbished."

"I'll send 8 of the men to help the ladies."

"And, I'll discuss your proposal with the family. By the way, how did Andy do?"

"He can shoot with the best of them. One magazine through the M21 took down 20 of the OpFor. Then he switched to Mossberg and took down another 9."

"All kills?"

"I don't know and it doesn't really matter since they were out of action. Firepower kills at the minimum; they couldn't shoot back."

"Ramón suggested cutting back tower personnel from 3 to 2. I approved temporarily until the family could talk it over."

“Are you including Andy and Sheree?”

“They’re family aren’t they? Ramón said Andy took down 29 of the bad guys.”

“Dead?”

“He didn’t know but he did say they were out of the fight.”

“He is a very good shot. All 4 of them headed for the range when I passed out the weapons. You realized that they probably have nothing to go home for?”

“He splitting duties with Hank and doing a good job of it. We actually got better crop yields than I expected.”

“That’s one of the benefits of no till farming; the soil retains the moisture better.”

“Then that’s why we didn’t need to irrigate; I be damned. How are you doing rolling oats?”

“I should have bought more of the flakers or motorized versions.”

“If you want more, just ask Ramón. I told him where to go to find them. You’ll have 8 extra men tomorrow to bag and store the beans, rice, corn, wheat and barley.”

“We’re having a problem with the barley because of the hull. We pressured cooked a batch like we did with the oats and not only removed the hull but also the bran. It looks just like the pearl barley we had on hand.”

“Pearling is a process of removing the hull and the bran from barley. There’s even a strain of barley know as pearl barley although I don’t know how it differs from other strains. For all I know it could be a reference to processed barley.”

“I think I’ll hold some back for beef and barley soup. Oh, we’ll have 16 extra men, not 8 since Hank is providing 4 and Andy 4. I think we’ll be close to our food levels before the war, excluding coffee and tea.”

“And the freeze dried food.”

“If you told Ramón about Canning Pantry, he won’t be that far from Emergency Essentials or Nitro-Pak. Maybe he can make a detour.”

“If he goes, he’s going to have to settle for using the Hummers. We might as well have him drive up to Montpelier, Idaho since he’ll be so close. Make up a list of the bulk packed things we got from Walton Feed. If we had another Hummer, we could send 3 cargo vans rather than 2.”

“And if you had 3 more, you could send 5 instead of 2.”

“I’ll talk it over with Ramón.”

“So, that’s what we discussed.”

“I just don’t know, Cal. Let a few of us make the trip to the camp and see what we can find. Why one extra Hummer?”

“Tail End Charlie.”

“Makes sense. Are you sure you want us away for what could be a month?”

“Remember there’s snow north of I-70 so leave early to get back. Get most of the stuff on the way up. I’ll bag up 1,000 ounces of gold and 100 ounces of silver. You’ll have to drive a tanker of stabilized diesel, probably as the last semi. That will cut the number of cargo haulers by one.”

They brought back 5 M1114s, 3 equipped with M240Bs, 1 with a M2A1 and 1 with an Mk 19 Mod 3. That brought us to a total 8 Hummers permitting a 7 semi/8 Hummer convoy. The next question was whether to include flatbeds in the convoy. They decided to take the fuel trailer, 1 flatbed and 5 cargo vans, all 53 footers. Three had reefers in case they found something they wanted to keep frozen. They run with reefers off on the way north. They did recover the reefer from Eloy which accounted for the 3rd 53 foot reefer.

It is 613 line of sight miles from Eloy to Hyrum. We weren’t flying and the closest I could figure from maps was 800 miles \pm 5 miles highway miles. We sent 45 days of rations with the convoy and 2 people per vehicle, 30 people. Half were armed with HK416s and half with HK417s, one of each per vehicle, plus shotguns and .45acp pistols.

Ramón was instructed to load on the way up and if they had room, pick up more on the way back, especially Mason jars and extra cases of regular mouth lids. The problem with Tattler lids is they’re expensive and people don’t give them back. Besides, Fruita, CO wasn’t on the way up or back. Any garden produce canned to sell would have regular lids. It also made it easier to differentiate between the products. The ladies would switch to the metal lids when our years’ worth of food was canned and stored.

The Blue Tilapia had finally been reintroduced to the farm pond and in a year or two would be added to the canal, depending on how much the water warmed. It’s a tropical fish, you know, Africa and the Middle East. They’re sometimes called *St. Peter’s Fish* because St. Peter caught Blue Tilapia in the Sea of Galilee. Up until he was challenged to become a fisher of men.

Ramón was calling each evening between 1900 and 2100 and give us a progress report. We agreed they should make southern Utah the first day and find a good spot to lie over. That call came in around 1945 and they were near Zion NP. They planned to pick up I-15 for as much the trip as possible stopping in Orem at or near Emergency Essentials. They'd load up there the next day and move up 189 to Heber City and check out Nitro-Pac.

It was nearly 2100 before they called in the next day and they had paid for supplies in Orem with a combination of diesel fuel and gold. They did get what they wanted but the packing date on the Mountain House foods dated back to before the war. Orem claimed they had no idea of what had happen in Heber City.

Nitro-Pak was closed for business and when they broke in the only things left were cobwebs. Someone had beaten them to Heber City several years before. Ramón said they we going to bypass Salt Lake City taking 40 north to I-80 to I-84 and rejoin I-15 south of Ogden.

The next call came from north of Ogden and they were camped out on highway 89 an hour or so from Hyrum. When he called at 1800 the next evening, they'd gotten everything we wanted from Canning Pantry 'and then some'. They still had daylight and were going to drive up 89 to Montpelier, leaving the loaded trucks refueled and guarded in Hyrum.

Montpelier was not abandoned and they'd raised their prices significantly. Ramón tried trading stabilized diesel and it was no go. Next, he tried gold and the guy's greedy eyes gleamed. He handed over the list and the guy said he could fill it at the regular price, pricing gold at \$1,500 an ounce. Ramón explained that going price was about \$3,000 an ounce and the guy said, no problem, just double the prices.

"No way mister. Head 'em up."

"Ok, \$2,500 an ounce."

"Sorry, no. We'll check Heber City."

"Go ahead, they're closed down."

"You don't say."

"I heard Emergency Essentials cleaned them out."

"You carry Mountain House products?"

"Just started before the war."

“We ordered from you just before the war and you didn’t have the selection of Mountain House foods you have available now. “

“The order only came 2 days before the war.”

“Like I said, fill the list based on gold at \$3,000 an ounce. Otherwise we’ll put the word out on the ham net that you’re selling stolen food and gouging on top of that.”

“I ah...”

“Head ‘em up.”

“Wait. Ok deal. You promise to keep it to yourself.”

“Sure.”

“Ok, back 2 trucks up to the loading dock. I’m alone and need help loading the stuff.”

“Just point the way and we’ll load it for you.”

Two hours later, they were loaded, the man paid and they were on their way back to Hyrum with most of their gold intact. After picking up the semis and Hummers in Hyrum, they returned to Canning Pantry and loaded a trailer of pints, quarts and lids. They then drove on down through Ogden and set up camp in a likely location. They had one more stop to make in Orem to finish filling the cargo vans.

“You’re back?”

“Sure am. Can you fill an identical order to the first?”

“Just, but it be double diesel and the same amount gold.”

“Agreed.”

“No biodiesel.”

“This is genuine stabilized #2 diesel.”

“Which stabilizer?”

“PRI-D.”

“Ok, deal. Back the empty truck up to the dock.”

“Trucks, actually; most of them have partial loads.”

“Then we’d better get started. Got your invoice handy? It will make it go faster.”

“Here you go.”

“Uh, thanks.

“Wait, we’re out of a couple of items on your list.”

“No problem, substitute.”

“But the substitutes run more.”

“When we were up Montpelier, the guy up there said you cleaned out Nitro-Pak in Heber.”

“Why that no-good, low-down excuse for a human being. The owners got killed in the attack. They were having a Fourth of July Picnic in Salt Lake City for all their employees. I called Rainy Day on the radio and filled him in. We took the food because it was abandoned and it made more sense for us to sell it than to let it go to waste.”

“I don’t care and you can take it to the bank. Now, what about the substitution?”

“Why not? You’ll pay the regular price?”

“Of course, but no double diesel.”

It was late when they finished loading but they had daylight and headed south. They made it just south of Nephi and stopped for the night. Ramón called and said they had everything they wanted and more. The Mountain House cans were newer than ours, packed just before the war. Plus they had a few surprises but we’d just to wait until they got home. He went on to say that if they drove straight through the next day; they’d be home around sunset ± an hour.

We were all waiting up when the convoy pulled in. All 30 of the men were beat and begged off filling us in. The only thing that Ramón said was, “We were over armed.”

“We got quite a bit at Emergency Essentials in Orem, paying for it in gold and diesel. Nitro-Pak in Heber had been cleaned out. At the next stop in Hyrum where we picked up the ‘special items’. One truckload of pints and quarts plus multiple cases of regular mouth lids. The ‘special items’ include a popcorn popper, heavy duty bar blender, all of the Mrs. Wages mixes they had in stock and a much larger grinder for ground meat.

“Montpelier was rather disappointing. He had stock that was available at the regular price valuing gold at \$1,500 an ounce. He claimed Emergency Essentials had cleaned out Nitro-Pak. Anyway, I didn’t believe him and bluffed and he admitted that both he and

Emergency Essentials cleaned out Nitro-Pak because they were having a 4th of July picnic in Salt Lake City.”

“Yeah, so?”

“The war happened on June 22nd. I don’t know where they were on the 4th of July, 2020 but they weren’t having a picnic in Salt Lake City. With space left, we stopped in Hyrum and got another load of jars and lids and returned to Orem. He wanted more diesel and I figured what the hell. But when he claimed to be out of something and I said substitute, he balked. I talked him into it and didn’t have to give him double diesel or pay extra for the substitutes.

“We spent the last night outside of Nephi and were home last night. We never fired a shot. Maybe the NRA was right about the mere presence of a gun preventing violence.”

“Thanks Ramón, we’ll get everything unloaded and put away. What about the popcorn popper and bar blender?”

“I’d like to pour a slab and erect a Community Center where we can all get together and celebrate events like Thanksgiving, Christmas and Independence Day. There’s steel building fabricator in Phoenix, on the west side.”

“Good idea. Get with Hank and Andy and make it happen.”

“They had a good trip.”

“We may have to give Ramón a bonus.”

“When are we going transfer the Tilapia to the canal?”

“Last I checked water temperature it was only 53°. We either wait for the sun to heat it or come up with an alternative.”

“For instance?”

“In *Percy’s Mission*, a limited amount of hot water was obtained by circulating water through the radiator of the engine of a generator. We could switch to generator power after plumbing the generators to discharge hot water into the canal and draw cool water from a different location. Furthermore, we should have erected a drawbridge to improve our security at the entrance to the property.”

“At least a drawbridge would make sense with merlons, crenels and guard towers. The generator idea sounds like it would be more trouble than its worth. Maybe if we could find a wood/coal fired boiler type furnace, we could make that work.”

“Right, I’ll check it out on the Internet.”

“No, we’ll use the Phoenix and Tucson Yellow Pages. We have both the Residential Yellow Pages and the Business to Business Yellow Pages for both cities.”

Did anyone still make those boilers? It was a good idea because we could check it out from our kitchen or dining room tables. Heating and Air Conditioning seemed the logical place to look.

The Dome III – Chapter 34

Hank was assigned the duty of figuring out how to raise a drawbridge. A bearing mounted pipe was mounted across the gate space and powered from ground level using flat chain. Flat chain is a form of chain used chiefly in agricultural machinery. The flat chain had idler sprockets to take up any slack in the chains that developed from use.

The actual bridge had been made of 2 layers of 1 inch road plate supported from below by steel I-Beams welded in place at 4 foot intervals. The length of the bridge was 16 feet to ensure a solid rest on the inside and outside of the canal. It took 2 minutes to raise the drawbridge to full vertical and lock it in place. If we didn't have 2 minutes to raise the drawbridge, the dozer could pull it to near vertical using a cable and the flat chain would complete the raising. When everything was accomplished, power was cut to the gate and the motor driving the gearbox for the flat chain drive sprocket.

The hard part had been producing the hinge for the inside edge of the drawbridge. Hank finally gave up and welded the inside edge of the drawbridge to another large pipe resting in a socket made from a slightly larger diameter pipe. A slot was cut in the larger pipe to allow full motion of the drawbridge from level to vertical and slipped over the end of the pipe welded to the drawbridge.

We ended up with 4 commercial coal burning boilers and made a trip to the Cholla Power plant. Cholla is in NE AZ 5 miles west of Holbrook AZ and 1 Mile SE of Joseph City AZ. We wanted to haul back coal from the power plant. The coal burned at the plant comes from the McKinley Mine in New Mexico. There was a train sitting there with a mile or two of coal cars ready to make a delivery and it was even pointed the right way. The guys eventually figured out how to run the diesel electric locomotives and started their trip towards Eloy.

An Advance Team led the way, setting switches, with power where possible and manually where not possible. Meanwhile, back at the ranch, we were pouring slabs for the boilers and routing the intake and exhaust pipes for the water. It was suggested that the water should be run clockwise around the 6 sections and as long all 4 boilers ran the same way, I said, "Whatever."

Once we had all four running and the water up to about 68°F I was thinking we could cut back to 1 or 2 boilers and feed them less coal. Ginger had recently inventoried the fuels and she said we had enough for at least 20 more years depending upon how many outside trips we made.

"I don't like outside trips, they expose everyone to dangerous conditions."

"Get used to it Cal, we have 3 upcoming weddings."

"Oh, who?"

“James and his Pima girlfriend.”

“Doesn’t she have a name?”

“From age ten until the time of marriage, neither boys nor girls are allowed to speak their own names. We’ll know when they’re married. And there are Kathy and Jen who have received proposals from their boyfriends.”

“They have names?”

“Jason is Kathy’s friend and Manny is Jen’s friend.”

“Nobody ask me for their hands in marriage.”

“Did you ask Daddy for my hand in marriage?”

“Alright, point taken. I’d have thought James would have said something.”

“In the 2030s? Get real. At least they’re not shacking up.”

“I hope they have sense to get pre-nuptials.”

Be that as it may, I made discrete inquiries about Jason and Manny. Hank said they were hardworking employees. I also talked to what’s-her-name’s father. He had high praises for his daughter and expressed doubts at her marrying outside her tribe. “I’ll take it up with the Council and let you know.”

“I’m sorry. I assumed it would be your decision.”

“Oh, it is, but I still need the advice of the council.”

“Do they have the ability of overruling your decisions?”

“They do, although it’s expressed more as disappointment. Personally I’ve met and approve of James. Most Méxicans have Indian heritage and I don’t see much difference. Let me caution you, don’t call her a Squaw.”

“Feminist?”

“Like you can’t believe. Are you going to insist on pre-nuptials?”

“I’m not sure. The thought did cross my mind.”

“I would advise against it. Ginger and you don’t have one, do you?”

“We were too busy getting married.”

“Get the cart before the horse?”

“She wasn’t pregnant if that’s what you’re asking.”

“I was and it’s good to hear. Our customs are different from yours but we’re in the 2030s, surviving day to day. Unless I get back to you within the next 10 days, you may assume the Council approved.”

“Now, what’s this about dowries?”

“Well in the 18 and 1900 hundreds, the father of the bride supplied a string of horses to the groom. In other tribes it was reversed. In both events it was referred to as the bride price. Your family doesn’t need any horses or anything of value we might be able to give. Were the shoe on the other foot, I might be inclined to ask for a Kimber and an M21.”

“Really? Come with me.”

“That case has a new M21 and the smaller case a Kimber. I’ll tell Ramón to issue you double the normal load out so you can get accustomed to the new weapons. What do you have, the HK416 or 417?”

“HK417 with that grenade launcher and suppressor, with 11 20 round magazines.”

“What does your wife have?”

“A 5½ inch Ruger Vaquero and a Winchester 1892 in .45 Colt.”

“I’ll give you an 1892 in .45 Colt, a Vaquero and the usual assortment of Cold Steel knives. Your wife can have a HK416 and Browning Hi-Power. Ginger can take care of the knives.”

“Why are you doing this?”

“If the Council approves you will be family and everyone in the family has the same armaments.”

“Does that include a Tac-50?”

“I guess it wouldn’t hurt to check out McMillan. We won’t know until we look. What do you think of the ranch?”

“Fort Defiance?”

“Isn’t here already a Fort Defiance in Arizona?”

“Yes, it’s near the Window Rock close to the New Mexico border on I-40. It’s nothing like this. You know the tribe to your immediate southwest?”

“I do, but we’ve never had contact with them. Are you related?”

“Same tribe. There are 4 Reservations, 2 near Phoenix, the one to your southwest and the northern México group.”

“Most of them survive the war?”

“About 80 percent. Just because we’re ‘savages’ doesn’t mean we’re uneducated. Cal, you seem like an intelligent, moral individual and James gave me the same impression. He has my permission to marry Morning Dove. She prefers to go by Dawn.”

“Ginger, make the wedding plans, all 3 father’s agreed.”

“Where are we going to hold the weddings?”

“In the new Community Center. Hank is tracking down the kitchen equipment, a pool table and juke box if he can find them. I told him to watch for bar equipment.”

“Cafeteria style?”

“That would be my first choice with a separate bar.”

“The beer has all gone bad.”

“I was considering a craft beer made by one of our employees. It’s not Coors; but it isn’t half bad.”

“How the liquor and liqueurs holding out?”

“Starting to get low. I saw a distributor listed in Tucson.”

“Locate a distributor who sold soft drink syrups and get a dispenser and more CO₂. Mind if I ask something?”

“Go for it.”

“Ramón is in charge of Security, Hank is in charge of the livestock and Andy is in charge of farming. What are you in charge of?”

“Worrying and it’s a full time job. There are about 200 of us here, men, women and children. We secure behind a moat, drawbridge and berm with merlons and crenels. We

don't have enough people to put one in each crenel so we added guard towers that are close enough to cover each other. By the way, the water is up to 70°. I should restart those 2 boilers."

"Don't change the subject. Tell me more about you worrying."

"You and I are in charge of worrying about all the small details. Things like growing Tilapia in the canal."

"You just said the water is only 70° so it's too cold to put the Tilapia the canal."

"And that worries me and I'm going to restart the boilers I shut down."

"Afraid we'd run out of coal? We won't live long enough to see the last of the coal unloaded and moved here."

"Yes, I jumped the gun, but I didn't want the canal to get too hot."

"When it reaches 78° you can worry about the temperature of the water and shut down the boilers as needed. We do have a lot of room for Tilapia fillets in the drive-in freezer."

"Do you plan on 30 acres of gardens next year or are you going to increase it to 40 acres?"

"Thirty acres should give us more production so we won't be increasing the acreage. There are people on the ham net but none will give their location so we don't have any trading partners for what we do produce."

"Have you told anyone we have food available?"

"Why would I do a fool thing like that?"

"If they were interested, you could at least get the state where they live to determine if we could deliver."

"The nearest states are California, New Mexico, Colorado, Utah and Nevada. They didn't find many people in Utah when they went north."

"And, I figure Denver and the Springs were probably nuked, taking care of eastern Colorado. There isn't much in western Colorado that we need."

"There's Tattler in Fruita."

"We have enough lids for trading and more than enough Tattler for our own use."

"I guess that leaves Nevada and southern California."

“Not much in eastern Nevada and they probably nuked Fallon, Reno and Vegas.”

“And they probably nuked both California reactors, San Diego, Los Angeles and San Francisco. Well, maybe not San Diego. They probably moved any naval vessels that survived to Hawaii and Seattle.”

“Assuming any survived.”

“They never said, did they?”

“Nope. Now, about the wedding...”

“The only clean suit you have is that fancy western cut suit. Both of your tuxedos are dirty and need dry cleaning.”

“It’s a little snug.”

“Gaining weight are we?”

“You don’t seem to be.”

“Sweat it off canning the garden produce. Next year you help and you’ll be back to what you weighed when we got married.”

“I’m not fat!”

“I didn’t say you were. With the employees we have doing the work and you doing the worrying, you aren’t as active as everyone else. We did stop the daily horse rides after the war due to the climate at the time. Firearms practice doesn’t burn a lot of energy.”

“Ok, what do you suggest?”

“Can you still ride a horse?”

“Yes.”

“Then do it. Make one turn around the ranch, have lunch and do it again.”

“Why?”

“So you’ll be in shape to work for Hank next spring.”

“Hank works for us, not the other way around!”

“He knows that and he’s likely to avoid having you do anything that you can’t. You have to show him you can do anything the Vaqueros can do. It’s called leadership as opposed to management.”

“And, I suppose you’ll be having me working for Ramón the following spring?”

“I was thinking Andy, but Ramón will do. You need to show leadership in all aspects of the work on the ranch.”

It wasn’t quite cold enough that the horses had grown winter coats. Or, someone was trimming their coats. I selected my favorite Barb gelding and saddled it, adding the saddle bags, pommel bags and rifles to the scabbards. My revolver today was a Ruger Vaquero with a 7½ inch barrel. Ruger never made a 3” Vaquero, but they made a special run of 3¾ inch barrels for Davidsons. I went back and corrected my journal to reflect the correct barrel size.

The rides were lonesome going alone so I generally got someone to ride with me. When it was a Vaquero, I usually got lessons on using the lasso (lariat). When it was a member of the security team, we practiced with handguns while mounted. When it was my immediate family; the discussion generally centered on the upcoming June weddings. With Andy, the topic centered on the crops and his plans to improve yields.

I did learn a lot, especially from the Vaqueros and security people who were, by in large, ex-military. I learned much more about the prospective spouses. Andy was a different story. When he wasn’t bemoaning the loss of his farm, he reiterated, time after time, his crop plans for the coming year and where he going to use manure; which never changed from one telling to the next.

When the time came, Ginger ‘suggested’ I start working for Hank. His only comment when I showed up was, “you ready?”

The first task was rounding up the cattle and branding the new calves. This was something he started doing after that last bunch of cattle was rustled. The horses were given lip tattoos. I did some branding but no lip tattoos. By Independence Day, I was nearly as proficient with the lariat as some of the long term Vaqueros; they had me aced on roping calf legs for the branding.

“How do you think you’re doing Cal?”

“You’re asking me? I think the thing that I have the most trouble doing is lassoing the hind leg of those calves.”

“You’ve got that right. Why do you think you’re having trouble?”

“Some of these Vaqueros have worked for us for years; I simply can’t compete.”

“I think you’re wrong. You can compete, you just lack self-confidence. Sometimes it takes you more than one throw to lasso the leg, but some of those people with years of experience take more than one throw, too. Getting a rope on their neck is the easy part while getting the second rope on the hind leg is the hard part. The calf is fighting the lasso around its neck and is moving every which way to get loose. I’ll see if I can get one of the old hands to work with you on roping the hind legs.”

I learned I was close to the old hands and with practice was about equal with everyone and better than some. Hank was right about roping a moving target, giving me confidence. Ginger pulled me off the assignment and had me working in canning operation where I swear I was sweating fat. My formerly snug jeans ended up being rotated into active service and the size larger returned to the drawer.

I thought that when the canning was finished up, it pretty much ended it for the year. Didn’t work that way, I ended up working for Ramón as just another security hand. With what I’d picked up from the vet’s this turned out to be the easiest of the 4 tasks. I was 3 down with 1 to go, working for Andy. My thinking had matured a little and I just did what Andy directed. It was the hardest physical work. The accomplishments were more tangible, grains in the bins, hay and straw in the lofts (hay mow). I sure didn’t gain any weight working for Andy. Four down and none to go. Or, so I thought. There were grains to process and to seal in Mylar bags with oxygen absorbers.

“Am I done now?”

“Still worried?”

“I haven’t had time to worry.”

“Then, you’re done now. You are also a leader rather than a manager because you know exactly what it is you’re asking someone to do. We’re only running one boiler and the water in the canal is holding right around $80^{\circ} \pm 2^{\circ}$. We’re restocking the drive-in freezer and we now have humanitarian packages of food for anyone who comes looking.”

“Is this reprieve temporary or permanent?”

“That’s up to you. Get flabby again and out of shape, start worrying and giving out orders like you don’t understand what you asking and it will be temporary. Otherwise it’s permanent.”

“Why do I feel like Jeremiah Johnson?”

“You’ve come far, pilgrim.”

“Feels like far.”

“Were it worth the trouble?”

“Huh? What trouble?”

“The blisters, following directions you disagreed with; all of it.”

“If it means not doing it again it was worth it.”

“They postponed the weddings until you completed all of your tasks.”

“I plumb forgot about that.”

“We brought in the 3 triple wides.”

“I remember that.”

“They’re hooked up and furnished.”

“I don’t remember that.”

“That was when you were learning how to be a Vaquero. While you were being a security officer, the kids decided to postpone the weddings until you completed all 5 tasks.”

“When’s the wedding?”

“Next week. I found someone to clean your tuxedos.”

“Formal wedding?”

“It’s just you and me for the moment. It depends on what the others have for dress-up wear. Suit and nice dresses for sure.”

“Black tie ok?”

“I think white tie would be over kill. The beauty of formal dress is that it doesn’t matter if the pants are a littler large because you’re wearing suspenders. I’ll be wearing my silk, full length, empire silhouette evening gown.”

She loved that gown because it emphasized her bust line. I always thought that a tuxedo was considered evening wear but times change and they were popular, almost *de rigueur* for weddings.

Everyone turned out for the weddings, many in suits and cocktail dresses but all the parents were in black tie. The reception menu was as diverse as the wedding parties

and something was served to meet every taste, with an emphasis on Mexican. Morning Dove told James her name and then insisted he call her Dawn.

*Pretty as a midsummer's morn
They call her Dawn*

*Dawn
Go away I'm no good for you
Oh Dawn
Stay with him, he'll be good to you*

*Hang on
Hang on to you
Think
What a big man he'll be*

*Think
Of the places you'll see
Now think what the future would be with a poor boy like me
Dawn go away*

*Please go away
Although I know
I want you to stay
Dawn go away
Please go away*

*Baby, don't cry
It's better this way
Ahh, ahh, ah
Ohh, ohh, oh*

*Dawn
Go away back where you belong
Girl we can't
Change the places where we were born.*

*Before you say
That you want me
I want you to think
What your family would say*

*Think
What you're throwing away
Now think what the future would be with a poor boy like me
Me*

Dawn

Go away, I'm no good for you

Dawn

Go away, I'm no good for you

The Four Seasons – Dawn

It didn't fly; James was anything but poor.

The Dome III – Chapter 35

There were no surprise announcements of pregnancies, but there's always tomorrow, it's only a day away. That wouldn't work either because, assuming the timing was perfect, the suspicion wouldn't arise for 2 weeks. Among the supplies in our one bed clinic was a large box of pregnancy testers. The question posed was, were they any good because they were beyond their expiration date. Way beyond. There's still the old fashioned way, 2 missed periods are a pretty good clue. An embryonic heartbeat can usually be detected in the 6th week or later. At the end of the 8th week, the embryonic stage is over and the fetal stage begins.

"It just occurred to me, we're going to have grandchildren."

"Make you feel old."

"Not particularly, that wasn't my concern."

"What was your concern?"

"Do we have enough firearms for the grandchildren?"

"That depends upon how many grandchildren we have."

"Figure on an average of 3."

"Nine complete sets of firearms? It's not like we can go to a gun store and buy them."

"No, they'd probably be closed. However, some of them will still be there and some may not have been looted. Didn't you say something about looking for a Tac-50 for Dawn's father?"

"I did tell him I'd check out McMillan. McMillan is about a block from Sky Harbor and if they got tires from Sky Harbor, we just might find some rifles at McMillan."

"What about the class 3 dealer who supplied most of the H&Ks?"

"He was on the northeast side of town and may have missed any direct blast effects."

"Ask Ramón to assign 2 Hummers to accompany us tomorrow when we go shopping in Phoenix."

"Yes, Dear."

"Don't yes dear me, I have plans for tonight."

"Prawns, filet and Caesar salad; what's for desert?"

“Me.”

I very nicely asked Ramón for the 2 Hummers explaining we were going to Phoenix tomorrow to do a little shopping. He asked what caliber and I told him 5.56, 7.62, 9mm, .45acp and maybe something with lot more kick. He'd have 2 Hummers ready to go at 7am.

The next morning, she said, “Wow!”

I said, “I'll double that!”

“Stay in shape, and you'll hear more Wow's.”

First stop was McMillan where we found 4 Tac-50A1R2s, 4 Tac-416s and 4 Tac-338 Lapua with magazines galore and scopes, mounts, rings, Elite Iron suppressors and 10 MUNS. We also found 10 M3A ladder type adjustable stocks and bedding material for glass bedding. The class 3 dealer had an even dozen each, HK416s and HK417s with the 20 inch barrels and suppressors and lots of magazines. We shopped around and finally came up with 11 590A1s, Mossberg part number 51663.

The handguns we found at first were a mixture of Colt M1911s and Taurus PT1911s but we kept looking and found a Kimber dealer who also carried Browning Hi-Powers in both flavors, Mk III and Classic. This guy was a stocking dealer which I assumed meant he had a lot stock. He did. One of Ramón's men pointed us to several dealers that catered to the Single Action Shooters. Used Vaqueros in 4⁵/₈, 5¹/₂ and 7¹/₂ inch were in abundance but no dealer had more than 1 1886 in a 20 and 24 inch barrel or 1 1892 in the 20 and 24 inch barrels. We were short and decided on the spur of the moment to go to Tucson and Tombstone the following day. There were more dealers in Tombstone than Tucson so we'd hit Tombstone first. I asked the party honcho to square it with Ramón.

He must have thought he was the Terminator, he said, “No problemo” instead of “No hay problema.” The first translates to ‘Not problem’ while ‘No problem’ translates to ‘No hay problema’.

After he was Governor, he went back to making movies. There was an issue raised in the LA Times back then that almost no movies were actually made in Hollywood. He was probably out of town on Judgment Day. The Apostles Creed tells us:

He ascended into heaven,
And sitteth on the right hand of God the Father Almighty;
From thence he shall come to judge the quick and the dead.

‘Quick’ is old English for ‘living’.

One can't really get to Tombstone without going through Tucson and Benson / Whetstone. If you exit to Whetstone, you take 90 south to 82 and turn east to the junction of 80 and turn south into Tombstone. If you exit to Benson, you take 80 south to Tombstone.

I hadn't been down to Tombstone for a long time, ergo, before the war. The town was larger than I remembered. This Tombstone catered to tourists. Somewhere I have a copy of *The Tombstone Epitaph*; a reprint of the paper the day after the Shootout at the OK Corral. I also had a book on *The Lost Dutchman Mine*, but we have more gold than he did, so why chance it... people get killed for looking for it.

We got most of what we wanted in Tombstone, and the Tucson nuke hit the old movie studio location on the other side of the mountain. The town was relatively intact, all things considered; the radiation must have done them in. With our goal fulfilled, we returned to the ranch, arriving in the middle of another firefight. Ginger and I held back, while the guys in the 2 Hummers joined the fray. The OpFor hadn't walked up to the gate / drawbridge and demanded anything. They were well concealed with good cover and were snipping with M82A1Ms.

They were out a ways, I don't know, maybe 1,600 meters, and the Mk 19 Mod 3 couldn't quite reach. The 2 M2A1 were putting out short bursts, raking the general area where the snipers were set up. Oh so close, but no cigar. Then a Hummer radioed Ramón passing information to allow them to correct their fire and then they moved up behind the snipers. The Hummer with the Mk 19 didn't fire; I told them I wanted those rifles. The Hummer with M2A1 opened up and the battle was over. Turns out we had 1 KIA 3 WIA from glancing rounds and they had 6 KIA from direct hits. Don't you just love it when a plan comes together?

Five of the rifles were in 100% condition and the 6th had only cosmetic damage. And, I was thinking, 'damn, I wished there had been 8 of them so we had one rifle for each tower'. Sometimes people get stuck on stupid, including me. I wasn't thinking about possible grandchildren at the time.

"We need 3 more of those."

"Three? I was thinking 2. You know so we could have one in each tower. With the soft mounts we could use them in the mounts for the Mk 19 Mod 3 which doesn't have the range of the M82."

"Where would you get the soft mounts?"

"Uh, Murfreesboro, Tennessee."

"We'd have to cross Arizona, New Mexico, the Texas panhandle, Oklahoma, Arkansas and a portion of Tennessee to get there?"

"I suppose."

"Forget it. Just add them to our armory. The kids and expected grandchildren have Tac-50s or something in a large caliber sniper rifle."

"We could keep them and give all the grandchildren 50 caliber rifles between the 4 Tac-50s and 6 Barrett M82A1Ms."

"And if they're fruitful and multiply..."

"We have the Tac-416s and Tac-338s."

"What's the damage Ramón?"

"One KIA, 3 WIA, glancing wounds, they'll survive."

"Who was KIA?"

"You never met him. He was a new guy who applied for a job on the Security Force. I told him I couldn't hire him without getting the Bosses approvals."

"Bosses?"

"Ginger and you; and, you know it whether you'll admit it or not."

"That's fair."

"It's a shame he got killed, I think he would have been a good one."

"It also tells us something we didn't really know before."

"Oh, what?"

"There are more survivors than the people on the ranch."

"Have you seen any?"

"We didn't see any in Phoenix, Tombstone or Tucson. However, there were at least 7, our KIA and the 6 your guys killed."

"If they're a cross section, about 71 percent (6÷7) of the survivors are bad guys."

"If that's the case, we'll have to find the other 29 percent. (1÷7)"

We didn't have room for more people although it would be incumbent on us to provide shelter and all the rest if someone showed up. The easiest solution would be erecting another pole building with dirt floors and insulation to keep it warm. A wood / coal outside furnace could heat the whole building depending on its BTU output. We could salvage two in case one wouldn't cut it. Wood / coal stoves would equip a kitchen. Add coal to the list of things you can never have too much of.

Propane wasn't an issue and we could always install more PV panels and inverter/charge controllers. We batted it around some and decided to try to get more doublewides since we could move fences, if necessary. This time we started in Tucson and pulled back 30 sections, or 15 doublewides. Next we went back to Phoenix and found 20 sections or 10 doublewides.

We started assembling them after installing the utilities. Both Phoenix and Tucson supplied furniture, washers and dryers plus upright freezers. That's where we hit our first stumbling block; everyone wanted an automatic washer and propane dryer. We took a semi with 2 53 foot cargo vans and loaded up (our first B-Train). We ended up with spares stored in Warehouse 2. Anticipating a much higher propane demand, we topped off the propane tanks and returned to Tucson to refill the propane tankers.

This trip we saw a few people who tried to avoid us. We boxed them in and I asked who spoke for the group.

"Well, I suppose that would be me."

"Do you have a name me?"

"I'm a 1st generation American who migrated from Germany in 1992 and most people call me Kraut."

"Kraut, my name is Calvin Burgess and my wife and I own a small ranch between Tucson and Phoenix in the vicinity of Eloy. We're looking for more residents because in our experience about 70 percent of the survivors of the war are up to no good and the other 30 percent could probably use our help. That 70 percent criminal element would rather take than bargain and trade.

"We're open to trade and will accept gold, silver, things we're in need of and labor. We provide housing, community bomb shelters, horses and plenty of beef, pork, chicken and fish to eat. We produce our own bread, its whole wheat, milk and so forth."

"My name is Eric Braeden, no relation. What kind of housing?"

"Doublewide mobile homes with appliances, washer, dryer, upright freezer and propane. We also produce our own electricity using 15 wind turbines and a lot of PV panels with 50kw generators for backup."

“You’ve been stealing the diesel and gasoline haven’t you?”

“We’ve been recovering it and restoring it to useable fuel.”

“Cleaned out the gun stores too.”

“Yep. Interested?”

“Have to talk it over with the wife. I think all of us would have to discuss it with our spouses.”

“Fair enough. If you decided you’re interested, take the Eloy exit and drive south to the castle.”

“You have a castle?”

“We have 6 sections surrounded by a canal where we grow fish and a berm with guard towers about every 1½ miles. People who work for us get food, housing, transportation around the ranch and appropriate firearms.”

“And if we don’t care for firearms?”

“Move to California, you’ll be in good company. Everyone on the ranch is armed except when they’re in bed or bathing.”

“How many families do you have room for?”

“At the moment 24. They’re 3 bedroom homes. We put in a 30 acre garden and most of the field crops are for both human and livestock consumption. If we get 24 additional families we can increase the size of the garden.”

“What do you grow?”

“Three varieties of wheat, corn, oats, barley and 3 varieties of beans, pinto, large white plus either small white, red beans, black beans and pink beans. The remainder of the food is grown in the garden or greenhouse; and we don’t grow anything that’s unpopular with most of the folks. We’re now rationing coffee and tea to one can per month and 2 boxes of teabags per month. That’s 57 ounces of coffee and 40 teabags.”

“Everyone is trained to use the weapons assigned to them and is expected to qualify bi-weekly.”

“What do you have?”

“Sorry, you’ll only find out if you move to the ranch. We’d be foolish if we told everyone what we had. Trust me, we aren’t under gunned.”

“What kind of transportation?”

“Most of hands ride Quarter Horse stock horses. My family also raises Moroccan Barbs, Andalusians and Lipizzaners. They’re pretty much reserved for family use.”

“Lipizzaners? No way.”

“The herd is small but growing. We only breed the mares every other breeding cycle now. People said no way when we got the Barbs and again when we got the Andalusians, but we got them and are protecting the breeds.”

“No Morgans?”

“No Morgans or Tennessee Walking Horses.”

“Want some Morgans and Tennessee Walking horses?”

“What do you have in mind?”

“Two Morgan stallions from different lines and 6 mares also from different lines. Three Tennessee Walking horse stallions from 3 different lines and 6 mares and 3 three-year-old fillies.”

“No geldings?”

“Six of each ranging from 4-year-olds to 6 year olds.”

“Looking to sell them?”

“Thought maybe they’d be our buy-in.”

“Deal.”

“That’s if we decide to come.”

“Naturally. Got tack?”

“Only for the grown horses.”

“Even if you decide not to come, we might be interesting is buying them.”

“They wouldn’t be for sale.”

“Ok, we’re not short of horses.”

A buy-in? That sounded like they thought the ranch was MAG, Mutual Aid Group. It was after a fashion, but only 4 people had votes, Ginger, Cal, Sheree and Andy plus we had 2 advisors, Hank and Ramón. Everyone could make suggestions, we weren't TOTALLY closed minded.

Any suggestion adopted that really improved ranch operation was rewarded in some way. We didn't pay bonuses, but things like extra coffee, more tea and etc. were rewards in themselves. If we were going to make a trip away from home across state lines, it had to be really important. For example, more coffee from one of Folgers' plants, maybe more tea... but they were on the east coast and Ginger had ordered that extra truckload of Bigelow. That was good for us and bad for a lot of the hands who didn't like Earl Grey. Earl Grey is an acquired taste, especially Bigelow Earl Grey. Couldn't get Twinings either, Twinings North America was in Clifton, NJ.

You know with bad always comes some good; we were no longer worried about global warming and actually hoped it got warmer. Not that we were short on that New Mexico coal that Cholla Power plant burned. We'd about exhausted the new doublewide mobile home market and building a pole building to house more people in apartments came up. We could do it like they did hotels, 3 bedrooms interspersed with 2 bedrooms and 1 bedroom efficiencies.

The first step was designing the layout for the 3 bedroom and then the 1 bedroom efficiencies followed finally by to 2 bedroom apartments. These would all be single bath units; they could cross their knees or use one of the bathrooms in one of the other ranch buildings. The 1 bedroom efficiency fit into the space created by the 3rd bedroom so a 3 bedroom and 1 bedroom combined made a rectangle. That meant that the 2 bedroom would be rectangular and we could fit some combination units in a single space. That, in turn, meant that we could adjust the shell to any size to accommodate so many units. In doubles because each combined unit would have a similar combined unit across the central hallway.

After careful consideration, we decided to build the number of units that we had shelter space for. We considered and discarded the hot racking concept for the shelters; everyone would have their own bed. What? No, I doubt that there'll be another World War between the inhabitants of Earth, be they so few, but what about non-Earth aliens? It was on the list, number 83, Hostile extraterrestrials.

Got a good price on the lumber, plumbing and electrical fixtures; they only cost a little diesel fuel, for trips to Phoenix. And somewhere along the line, someone got the idea to adopt the Farnsworth method of construction and to make the apartment building 2 stories, ergo, double the space in the same foot print. I guess that there will be some hot racking after all, except for the Dome. Speaking of which, we didn't water the lawn very often and didn't need to mow the grass.

Decided to build an extended basement below the apartment with about a double foot print, roof it with road plate and 6 feet of soil. We needed a foundation for the apartment building anyway.

The Dome III – Chapter 36

Our daughters and daughter-in-law are all pregnant and each appears to have a different due date. I've gotten the prenatal vitamins from the clinic and have given the pills to them, explaining that I was relatively sure they wouldn't hurt them but, given the pills ages, wasn't certain that they would do a lot of good. I suggested that they eat very well balanced diets, just in case. Between you and me, I hoped I was correct about the prenatal vitamins not hurting them.

Cal is a new person these days since I pushed him into being a leader rather than a manager. He frequently helps the Vaqueros, Security Staff or the builders putting together the new 2 story apartment building. We initially agreed on only building enough apartments that our existing shelter space would accommodate. And then, came the suggestions; ergo, use the Farnsworth method of construction and later, make the building 2 story. We didn't have any problem accumulating the building materials.

I think I'll try and persuade him to increase the shelter space to eliminate hot racking. It's not like we're short on food, in total. We're rationing the coffee until we can find some more and the Earl Grey isn't too popular so we have plenty for the dome. Our three were introduced to Earl Grey early on and eventually developed a taste for it. It seems that many of our employees preferred Lipton Tea and they were on their own, I wouldn't buy it. They seemed to follow our pattern of stocking up on essentials and collected more Lipton after the war, whenever they had the chance.

But, during the 10 years or so when the sun didn't shine, I noticed our coffee supply getting hit harder than usual and had to limit it to one can per family per month. Cal's idea about Tennessee had some merit; provided we could take a convoy and make some side trips, like Kansas City and NOLA. Maybe we could hit a few Wal-Mart warehouses and fill in a few essentials, like Lipton Tea. The hands work harder when they feel appreciated.

"We should try and find some grocery warehouses. The hands prefer Lipton tea, not the Bigelow; we're short on Folgers and I won't drink Starbucks; so, how about a road trip, Cal?"

"Kansas City or NOLA?"

"Among others, yes. I'm sure Twinings must have a warehouse somewhere near Clifton, New Jersey. If we go that far, we should check out Bigelow Tea in Charleston, South Carolina. We could cut through Tennessee on our way to NOLA and head north to Kansas City. We might find some wheat in the Kansas elevators on our way home and perhaps chili peppers in New Mexico."

"Whoa, whoa, wait a minute Ginger. Did you not say, 'We'd have to cross Arizona, New Mexico, the Texas panhandle, Oklahoma, Arkansas and a portion of Tennessee to get

there?' followed by, 'Forget it. Just add them to our armory. The kids and expected grandchildren have Tac-50s or something in a large caliber sniper rifle.'

"I changed my mind."

"Just like that?"

"No, I gave a little thought."

"How little?"

"More than you think. Give in, you aren't going to win and I'll develop a headache."

"I thought we were past all that foolishness."

"That's the thing about headaches, they occur when you're least expecting them."

"How big of a convoy?"

"A tanker of diesel fuel, 6 cargo vans and 8 Hummers. Put the tanker in the middle of the convoy."

"Have you ever heard the song *Convoy*?"

"Not that I know of."

LEGEND:

(sung by background singers)

[on the cb]

Ah, breaker one-nine, this heres the rubber duck. you gotta copy on me, pig pen, cmon? ah, yeah, 10-4, pig pen, fer shure, fer shure. by golly, its clean clear to flag town, cmon. yeah, that Big 10-4 there, pig pen, yeah, we definitely got the front door, good buddy. mercy sakes alive, looks like we got us a convoy...

*It was the dark of the moon on the sixth of June
And a Kenworth pullin' logs
Cab-over Pete with a reefer on
And a Jimmy haulin' hogs
We's headin' for bear on Eye-one-O
'bout a mile outta Shakeytown
I says "Pigpen, this here's Rubber Duck"
"And I'm about to put the hammer down"*

*('cause we got a little ole convoy rockin' thru the night)
(Yeah, we got a little ole convoy, ain't she a beautiful sight?)*

*(Come on and join our convoy, ain't nothin' gonna get in our way)
(We gonna roll this truckin' convoy 'cross the USA)
(Convoy)*

[on the cb]

*Ah, breaker, pig pen, this heres the duck. and, you wanna back off them hogs?
yeah, 10-4, bout five mile or so. ten, roger.
them hogs is gettin in-tense up here.*

*By the time we got into Tulsa-town we had 85 trucks in all
But there's a roadblock up on the cloverleaf
And them bears 's wall-to-wall
Yeah, them smokeys 's thick as bugs on a bumper
They even had a bear in the air
I says "Callin' all trucks, this here's the Duck"
"We about to go a-huntin' bear"*

*('cause we got a great big convoy rockin' thru the night)
(Yeah, we got a great big convoy, ain't she a beautiful sight?)
(Come on and join our convoy, ain't nothin' gonna get in our way)
(We gonna roll this truckin' convoy 'cross the USA)
(Convoy)*

[on the cb]

*Ah, you wanna give me a 10-9 on that, pig pen? negatory, pig pen; youre still too close.
yeah,
them hogs is startin to close up my sinuses. mercy sakes, you better back off another
ten.*

*Well, we rolled up Interstate Forty-Four
Like a rocket-sled on rails
We tore up all of our swindle sheets
And left 'em settin' on the scales
By the time we hit that "Chi-town"
Them bears was a-gettin smart
They brought up some reinforcements
From the "Illinois" National Guard*

*There's armored cars and tanks and jeeps
'n' rigs of ev'ry size
Yeah, them chicken coops was full of bears
And choppers filled the skies
Well, we shot the line, we went for broke
With a thousand screamin' trucks
And eleven long-haired friends of Jesus
In a chartreuse microbus*

[on the cb]

*Ah, rubber duck to sodbuster, come over. yeah, 10-4, sodbuster? lissen, you wanna put that micra-bus right behind that suicide jockey?
yeah, hes haulin dynamite, and he needs all the help he can hear.*

*Well, we laid a strip for the Jersey Shore
Prepared to cross the line
I could see the bridge was lined with bears
But I didn't have a doggone dime
I says "Pigpen, this here's the Rubber Duck"
"We just ain't a-gonna pay no toll"
So we crashed the gate doin' ninety-eight
I says "let them truckers roll, ten-four"*

*('cause we got a mighty convoy rockin' thru the night)
(Yeah, we got a mighty convoy, ain't she a beautiful sight?)
(Come on and join our convoy, ain't nothin' gonna get in our way)*

*(Convoy!) ah, 10-4, pig pen, whats your twenty?
(Convoy!) omaha? well, they oughta know what to do with them hogs out there fer shure. well, mercy
(Convoy!) sakes, good buddy, we gonna back on outta here, so keep the bugs off your glass and the bears off your...
(Convoy!) tail. well catch you on the flip-flop. this heres the rubber duck on the side.
(Convoy!) we gone. bye, bye.
(We gonna roll this truckin' convoy 'cross the USA)*

"I have heard a recording. Who was it?"

"C. W. McCall. C. W. McCall is the pseudonym of William Dale Fries, Jr. (born November 15, 1928, Audubon, Iowa, United States), an American singer, activist and politician known for his truck-themed outlaw country songs.

"In 1973, while working as a creative director for Bozell & Jacobs, an Omaha, Nebraska advertising agency, Fries created a Clio Award-winning (1974) television advertising campaign advertising Old Home Bread for the Metz Baking Company. The advertisements featured a truck driver named C. W. McCall, who was played by Dallas, Texas, actor Jim Finlayson. The waitress named Mavis Davis was played by Dallas actress Jean McBride Capps. The commercial's success led to songs such as 'Old Home Filler-Up an' Keep on a-Truckin' Café', 'Wolf Creek Pass' and 'Black Bear Road'. Fries wrote the lyrics and sang while Chip Davis, later of Mannheim Steamroller, wrote the music.

"McCall is best known for the 1976 #1 hit song 'Convoy', which came at the peak of the CB fad in the United States. It sold over two million copies, and was awarded a gold disc by the RIAA in December 1975. Though McCall is not a one-hit wonder, 'Convoy'

has since become his signature song. McCall first charted the song 'Wolf Creek Pass', which reached #40 on the US pop top 40 in 1975. At least three other songs reached Billboard's pop Hot 100, including 'Old Home Filler-Up an' Keep on a-Truckin' Café', 'Round the World with the Rubber Duck' (a pirate-flavored sequel to 'Convoy'), as well as the environmentally-oriented 'There Won't Be No Country Music (There Won't Be No Rock 'n' Roll)'. A dozen McCall songs appeared in Billboard's Hot Country Singles chart, including the sentimental 'Roses for Mama' (1977).

"In 1978, the movie *Convoy* was released, based on the C.W. McCall song. The film starred Kris Kristofferson, Ali MacGraw, Burt Young and Ernest Borgnine and was directed by Sam Peckinpah. It featured a new version of the song, written specially for the film.

"In addition to the 'original six' McCall albums released between 1975 and 1979, two rare singles exist. 'Kidnap America' was a politically/socially-conscious track released in 1980 during the Iran hostage crisis, while 'Pine Tar Wars' referred to an event that actually happened in a New York Yankees-Kansas City Royals baseball game during 1983 (a dispute concerning the application of a large quantity of pine tar to a baseball bat used by George Brett, one of the Royals players).

"In 1986, McCall (William Fries) was elected mayor of the town of Ouray, Colorado, ultimately serving for six years.

"In 1990, American Gramophone Records issued a CD containing a number of old McCall tracks re-recorded for the digital CD age, plus a new song, 'Comin' Back For More', which was inspired by Alferd Packer, an alleged 19th century cannibal."

"That explanation sounds canned."

"I copied it from Wikipedia. I also copied the story of Albert Johnson who was the basis of the Lee Marvin and Charles Bronson movie *Death Hunt*."

"He was real?"

"He was real. The ending of the movie didn't follow what really happened; it ended after a 150 mile foot chase lasting more than a month and a shootout in which Johnson was fatally wounded on the Eagle River, Yukon on February 17, 1932."

"What about my suggestion?"

"What suggestion? I assume you already have it set up with Hank and Ramón. When do we leave?"

"We're waiting on those people from Tucson to make up their minds. We'll go after we know. All the drivers going with us are Vaqueros and Ramón will supply the Hummers and one security person per."

“Maybe we should drive down to Tucson and get them off the dime.”

“Agreed and we’ll take Hank and Ramón and let them answer any question the people might have.”

“Tomorrow?”

“Fine.”

I’m a chauvinist and prefer not to hire women for the security forces unless they have military combat experience. The wives and girlfriends of our hands probably worked harder in the garden, processing and canning than the Vaqueros and farmhands did in the fields. They were justly compensated because Ginger saw to that. Maybe it related back to Carolyn’s murder, but that’s just how I am. You move on; you never forget.

The next day we returned to Tucson, riding in the Hummers with either Hank or Ramón and one security troop. We asked for Kraut and he was soon brought to where we sat.

“Kraut, as much as I hate to rush you, we need an answer now. We have some pressing business to conduct and have been delaying it waiting on your answer.”

“Any chance we can check it out before we say yes or no?”

“I’m sorry; I thought that I made that perfectly clear when I told you where we’re located. By all means send some representatives to check the ranch out along with your new accommodations, etc. including our Warehouses.”

“We have more than the 24 families and you said you could only accommodate 24.”

“We’re finishing up a new, 2 story apartment house with a basement shelter. All buildings on the ranch, save the drive-in freezer are accessible via underground tunnels.”

“Can you pick up a party of 6 at 7am tomorrow?”

“Ramón?”

“No problem. Sidearms only.”

“What if we don’t have a sidearm?”

“Not our problem. If and when you move to the ranch, you will be provided with sidearms.”

“But...”

“Let it go Kraut,” came a voice from the crowd.

After returning from Tucson, Ginger gathered up several ladies and each of the 24 doublewides were stocked with an identical amount of food. The Apartment building was finished except for painting the outside window frames. Hank got a crew on that. The 3 bedroom apartments were supplied with the same items used for the double wides, the 2 bedrooms got $\frac{2}{3}$ of that amount and the 1 bedrooms $\frac{1}{3}$ of that amount. The furnishings were placed in the apartments although flatware, dishes, pot and pans were kept stored in Warehouse 2.

According to Kraut, the next morning they had located a total of 34 families, 2 senior couples and 4 single individuals in Tucson. The party included Kraut, a married woman from another family, a senior couple, a single male and a single female. He asserted it was more or less a representative sample of the survivors. To be honest, Kraut gave me bad vibes; I attributed those to his somewhat harsh manner. His handgun was a Glock 21.

Never judge a book by its cover. That’s double faced statement; the book can have nice cover and be awful and the reverse is also true. By the end of the tour, I was seething; Kraut did in fact think the ranch was a MAG. He was asking questions like, “When are the planning meetings,” “Does everyone get to vote on everything or just important things?”

“Kraut, the ranch is not a Mutual Aid Group. It is, in fact, a business owned by Ginger and me. There are 4 voting members, Ginger, her brother Andy, his wife Sheree and me. The only official advisors are Hank and Ramón. Except for a small security force, everyone else works as a Vaquero or a farmhand. Everyone qualified with a weapon helps defend the ranch if, as and when it’s attacked. Exceptions are determined by the voting members based on the advice of Hank and Ramón. If that’s unacceptable, you won’t be welcome at this ranch.”

“But you have so much.”

“Everything was earned, with a few exceptions, prewar.”

“What did you steal post war?”

“We recovered abandoned fuels that had to be restored, abandoned firearms and ammunition and mobile homes.”

“That’s it?”

“For the most part, yes.”

“It’s not fair you have and others don’t.”

“Sure it is; there was nothing preventing others from preparing the same as we did, on an appropriate scale. We may have had more money available to devote to preparations but we had more people to prepare for.”

“What about those expensive horses?”

“They may be the last of their breed in the United States.”

“If this isn’t a MAG, then there is no buy-in, right?”

“Right.”

“But you would have taken the horses as a buy-in, right?”

“Right; they may be the last of their breed in the United States. We have the space and can produce the feed for a large number of livestock.”

“I’ll tell you, Calvin, I thought you had a MAG, not a Kingdom. I’m disinclined to move here. I lost 6 friends recently and I don’t get good vibes here.”

“Six you say? Close friends?”

“Very close; the 7 of us were members of a .50 caliber shooting group.”

“Tac-50s?”

“Barrett M82A1Ms. I couldn’t go with them because I was under the weather with some bug or something.”

“I see. I can see where you’d get bad vibes from the ranch. What do the rest of you folks think?”

The seniors were for it, as were the singles. Neither Kraut nor the other woman was for it. One of the seniors commented that she was recently widowed with 5 other women.

“We’ll take you back to Tucson and you can think about it. Hank, take care of it, please. Ginger, call a director’s meeting with Andy and Sheree, please.”

“Right.”

“Ok honey.”

“There were 7 snipers, not 6; Kraut was the 7th and couldn’t come because he was sick. Germany was reunified in 1990. Eric Braeden is the stage name of a German actor who most recently starred on *The Young and the Restless*. The Ministry for State Security,

commonly known as the Stasi, was the official state security service of the German Democratic Republic or GDR, colloquially known as East Germany. It has been described as one of the most effective and repressive intelligence and secret police agencies to ever have existed.

“I suspect that Kraut and the other members of their .50 caliber shooting group were former Stasi who emigrated from Germany to the US in 1992 using false identities they generated before the Wall fell in 1989 or shortly thereafter. I also presume that they brought their families with them using the same type of false identities.”

“You sound so sure Cal.”

“I am very sure, but I can't prove it. After we 'think it over', I suggest we propose to invite people from Tucson based on interviews of each family unit. I'm inclined to invite the seniors, without an interview, but that might wave a red flag. After the interview we can bring the families we 'accept' up here to decide if they want to move here. If they want to move, we'll take them back to Tucson to gather their belongings the next day and interview another family unit. One family per day will only postpone our trip by approximately one month.

“Braeden starred in a movie I saw on cable, *Colossus: The Forbin Project*, a 1970 American science fiction thriller film. It is about a massive American defense computer, named Colossus, becoming sentient and deciding to assume control of the world.

“As I recall the plot, Dr. Charles A. Forbin, Eric Braeden, is the chief designer of a secret government project that has built an advanced supercomputer, called 'Colossus', to control all of the United States and Allied nuclear weapons systems. Colossus is impervious to attack, encased within a mountain and powered by its own nuclear reactor. When it is activated, the President of the United States announces its existence at a press conference, proudly proclaiming it a perfect defense system that will ensure peace.

“Shortly after, Colossus sends a cryptic message: 'Warning: There is another system'. Moments later, the President learns the Soviets will shortly be activating their own version of Colossus, a computer known as 'Guardian'. Forbin tries to figure out how Colossus learned of Guardian's existence.

“Colossus asks that communications be established with Guardian. The President allows the construction of the communications link to help determine the Soviet machine's capabilities. Once the link is established, Colossus begins sending messages, starting with simple mathematics but becoming increasingly more complex. After a while, Guardian responds. Soon the two machines begin communicating in a binary language that the scientists cannot interpret.

“This alarms the President and the Soviet General Secretary, who agree to disconnect the link. The machines insist that the link be restored. When the President refuses, Co-

Colossus launches a nuclear missile at an oil field in the USSR; Guardian launches one at Henderson Air Force Base in Texas. Demands to stop the attacks are ignored, and the link is hurriedly reconnected. Colossus is able to shoot down the Soviet missile, but the US missile destroys the oil field and a nearby town. Cover stories are released to the press.

“The two computers exchange information without limitation. A meeting between Forbin and his Soviet counterpart, Dr. Kuprin, is hurriedly arranged. When Colossus learns of the meeting, Colossus and Guardian order that Forbin be returned California, while Soviet agents are ordered to shoot Dr. Kuprin.

“The computer demands that Forbin be placed under 24-hour surveillance so that it can watch him at all times. Before this is done, Forbin meets with his team outside and proposes that his associate, Dr. Cleo Markham, pretend to be his mistress to keep him in touch with clandestine operations against Colossus.

“After deciding the computers are impervious to attack, Forbin suggests disarming the missiles to prevent nuclear blackmail. American missile commanders come up with a plan to replace the missile triggers with fakes. However, based on existing maintenance schedules, it will take three years to neutralize all the missiles.

“When a voice synthesizer is set up, Guardian/Colossus announces that it has become one entity. Guardian/Colossus then instructs the governments to retarget all nuclear missiles at those countries not yet under its control. Both governments see this as an opportunity to covertly disarm the missiles much faster under the pretext of carrying out these orders. The process starts with a missile in Colorado. The procedure is successful.

“Meanwhile, working by direct personal contact, the scientists attempt to overload the computer by feeding in test cycles. The attempt fails, and the individuals responsible are ordered immediately executed by firing squad. Shortly thereafter, Guardian/Colossus sends plans for an even larger computer to be dug into the island of Crete.

“Guardian/Colossus, which has so far only communicated with the American and Soviet governments, arranges a worldwide broadcast. It announces it is ‘the voice of World Control’ and declares that its mission is to prevent war, as it was designed to do so. Mankind is given the choice between the ‘peace of plenty’, or one of ‘unburied dead’. It also states that it had detected the attempt to disarm the missiles and detonates two of them in their silos ‘so that you will learn by experience that I do not tolerate interference’. Guardian/Colossus tells Dr. Forbin that ‘freedom is just an illusion’ and that ‘In time, you will come to regard me not only with respect and awe, but with love’. Forbin replies, ‘Never!’”

“That’s ridiculous!”

“That’s number 150 on Jerry’s list. Be that as it may, what about my proposal?”

The vote was 'sort of' 3 to 1 with Sheree being in total disagreement with and Andy begrudgingly supporting my proposal.

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Author's Note:

When the executives at Control Data Corporation found out that Universal was planning a major movie featuring a computer, they saw their chance for some public exposure, and they agreed to supply, free of charge, \$4.8 million worth of computer equipment and the technicians to oversee its use. Each piece of equipment carried the CDC name in a prominent location. Since they were using real computers - not just big boxes with a lot of flashing lights - the sound stage underwent extensive modifications: seven gas heaters and five specially-constructed dehumidifiers kept any dampness away from the computers, a climate control system maintained the air around the computers at an even temperature, and the equipment was covered up at all times except when actually on camera. Brink's guards were always present on the set, even at night. The studio technicians were not allowed to smoke or drink coffee anywhere near the computers.

The many prominent blue and gray "consoles" (the ones with a rotary knob on the right side) for Colossus are cannibalized console panels from several IBM 1620 computers remounted on prop "computers".

Programs and commands for Colossus often elicit the expression "OLD PROGRAM NAME" on the large text displays of the computer. This reflects the influence of time-sharing terminal interfaces used at the time, especially for interactive programming environments in the BASIC language. Existing programs were often loaded for editing or execution by typing the command OLD into a terminal, and then responding to a prompt with the program name, whereas new programs were created by typing NEW. Similarly, RUN was the command used to actually execute a program written in BASIC on these systems.

The computer seen in the film was the payroll computer at the studio.

Producer Stanley Chase said that while it's frightening to suppose a computer could take over the world, it was indeed possible. His technical advisor said that a machine like Colossus actually existed at that time. The model for Colossus was supposedly the NORAD system that controlled the US national defense systems, and that's why the computer programming center in the film was located in the Rocky Mountains (which is also the home of NORAD). The US government wouldn't allow a film crew on the NORAD grounds, so the exteriors were filmed at the Lawrence Hall of Science in Berkeley, California. The missile sites were photographed in the California desert near Palmdale.

D.F. Jones worked with computers in Britain during WWII and knew about Colossus, the computer which was the heart of Britain's code breaking complex at Bletchley Park.

When the Colossus commanded missile re-targeting procedure is shown in a segment where the conspirators are watching for the success their sabotaged warhead arming module replacement, the new target coordinate provided by Colossus (Lon 99 deg 6 min 45 sec, Lat 19 deg 26 min 5 sec) is that of Mexico City, Mexico.

Universal later reused the footage of Colossus being activated as part of *Cyborg: The Six Million Dollar Man*. Before they begin operating on Steve Austin to attach his bionic limbs, the entire activation sequence from Colossus is used.

Originally Charlton Heston and Gregory Peck were considered for the lead role, but Stanley Chase insisted on an unknown actor for the lead and German-born actor Eric Braeden was cast.

Near the end of *Terminator 3: Rise Of The Machines*, the speaker that the Colossus computer uses to speak to the humans can be seen in the Presidents bunker at Crystal Ridge on one of the main computer terminals. In T3, through this speaker, John Connor hear calls for help from all over the United States after Skynet and the machines become self-aware.

In the movie, one of the attempts by the humans to regain control of Colossus is to try to overload the machine by feeding it too much data. This sequence is not in the original D.F. Jones novel "Colossus", on which the movie is based; however, it is a major plot point in the novel's sequel, "The Fall of Colossus", which was published in 1974.

The outside views of the "Colossus Control Center" are images of the Lawrence Hall of Science, just opened in 1968 when this film was being made. LHS is a science and computer museum still open to the public in the hills just above the University of California Berkeley campus and is a University managed facility.

When Colossus/Guardian detonates a nuclear bomb near the end of the film, the blast footage seen on the monitors and TVs is that of "Ivy Mike", the first US test of a nuclear fusion device. It took place in November 1952 at Enewetak Atoll in the Pacific Ocean.

Endnote

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"I'm surprised at Andy. Sheree said no and I said yes; that left him between a rock and a hard spot. His yes was very tentative."

"I noticed, Ginger. I believe that he's unhappy being here in Arizona. They really didn't have much choice if the farm got a huge amount of radiation. On the other hand, we got enough radiation to need to shelter for a very long time. I think that if he had his druthers, he'd move back to Missouri."

“You’re probably right. I could give him my gold and silver, the stuff I had when we got married, to set him up.”

“We have those M3A stocks and bedding material. I wonder how far the farm is from Genesco.”

“The farm is near Sullivan. I’d guess give or take 325 miles. I looked it up once when I was thinking about buying an M1A rifle.”

“I sure would like to get 12 of those SA9102 actions. Surely we have someone here that could glass bed the actions.”

“If anyone would know, it would be either Hank or Ramón. Ask them.”

The Dome III – Chapter 37

I asked Hank and Ramón and neither had a clue. It didn't really matter at the moment because we had stocks but not the actions, mounts, scope rings or scopes. I thought I could probably pick up the suppressors in Phoenix because everyone and his brother manufactured suppressors in Phoenix. I explained our decision of interviewing one family unit a day until we had all the people from Tucson that we found acceptable.

"Doesn't that include Kraut? I purely don't like the man or trust him either. You'll be getting a pig in a poke if you accept him."

"We discussed that and I think he's an East German and a former member of Stasi. In fact, he was one of the snipers with the Barrett rifles who couldn't make the trip because he came down with a bug of some kind or another. There are 6 widows who are probably the wives of the 6 men we killed and we won't invite them either. We'll be interviewing 1 family unit per day and if they pass muster, they'll be invited to the ranch to check it out. If they want to stay, we'll take them back to Tucson the next morning and interview the next family while the first gather their things. Plan on 2 Hummers with M240Bs, a couple of LAWs and an assortment of hand grenades."

"Better Cal; we may get out of this with our lives."

"After they're settled in, we'll be making the cross country trip looking for things we're short on like coffee, tea and Barrett rifles with soft mounts. I wanted to put one Barrett in each tower for when the attackers are beyond the reach of the Mk 19s. Hank you'll be providing the vehicles and Ramón will provide one security man for each of the 8 Hummers. I've decided to leave the two of you here to make sure the ranch is intact when we get back. We're also taking Andy and family back with us to Sullivan, Missouri so they can resume farming."

"What if his farm isn't in good enough condition to farm?"

"We'll probably bring them back if that's the case. This is the easiest approach, letting them see for themselves. We'll probably hit Kansas City first to get Folgers, cut down to Sullivan, and check for grocery distributors in both KC and the St. Louis outskirts. From there we're going up to Springfield Armory looking for SA9102 actions to mount in the M3A stocks we found.

"Twinings North America is located in Clifton, New Jersey and we'll check them and Bigelow Tea in Charleston, South Carolina for tea. Then, we'll head for Barrett Rifles in Tennessee and turn south for NOLA, another Folgers operation. At that point I guess it will depend on how much space we have in the cargo vans. We might check Houston to see if PRI survived and we may or may not check Kansas elevators for wheat. Last stop will be New Mexico looking for chili peppers. I figure on 4 weeks minimum and 6 weeks maximum. Hank, please have your mechanic check out Andy's Suburban and travel trailer."

Ginger and I did the interviews of those indicated that they wanted to move to the ranch. Surprisingly, that included Kraut and the 6 widows. We selected the seniors, a foregone conclusion. We carefully screened the others, attempting to determine if they were friends of Kraut and the 6 widows. None had even been acquaintances, before the war, and none were anti-gun. Many were, in fact, firearm owners who carefully husbanded what ammo they had. We saved Kraut's family and the 6 widows for last and not surprisingly didn't extend an invitation to them to move to the ranch.

We had deferred the decisions on the last 7 until everyone else was settled at the ranch. Housing was assigned according to their need with most of the seniors getting 1 bedroom or 2 bedroom apartments. Kraut's family and the 6 widows were very unhappy when they weren't invited to move to the ranch. I could see it in his eyes, although he said nothing. I do believe they all expected it because of being interviewed last. Were our days of getting fuel supplies from Tucson at an end? It didn't really matter; we had about 90 plus percent of the fuel supplies moved to the ranch by then. And, Phoenix had so many more supplies of stored fuels.

"Ramón, keep the gate locked and blocked. And, raise the drawbridge after we leave. We haven't heard the last of Kraut and company. Keep in mind he has a Barrett M82A1M and who knows how much ammunition."

"I wouldn't be surprised if they didn't have some of those new H&K rifles, Cal. We'll be keeping 2 in the towers 24/7 until you return. Do you really think you can do all the things you mentioned in 6 weeks?"

"Truthfully, it depends on what we find. Ginger says Andy can drive a semi-tractor so if we find more than we expect, we will be getting a semi-tractor and appropriate trailer to haul the extra. Hank, a new requirement; as I understand it, a B-double consists of a prime mover towing two semi-trailers, where the first semi-trailer is connected to the prime mover by a fifth wheel coupling and the second semi-trailer is connected to the first semi-trailer by a fifth wheel coupling. I don't want dollies; I wanted the fifth wheel mounted on the back of the 53 foot trailers. Can you do that?"

"It's what we did when we went after the washers and dryers... no problem. It's just a matter of getting some extra trailers that already have the rear fifth-wheel coupling. That's not hard to do in Arizona. Some of ours already do for pulling pups. Give me a couple of days."

"Have you checked everything on the tractors and trailers?"

"They have new tires all the way around with new mounted spares with extra spares that will work on the tractors and trailers. The mechanic has been through each engine and transmission and he says they're good to go for 25,000 miles. The brakes are in good condition and we turned rotors and installed new pads plus axle bearings where necessary. There are spare filters and barrels of oil in one of the trailers. The mechanic

will be driving that tractor and his complete toolbox is in the trailer, strapped to the side near the rear door with oil and spares strapped opposite.”

“Let’s hope we don’t have to do more than oil changes or add fluids.”

“Amen, brother. But he has the fluids, a few extra batteries and a selection of parts. If you do acquire another semi-tractor, get a Peter Car, that’s what he has parts and extras for. Average oil change interval is 15,000 miles but some Cummins engines are rated for 25,000 miles between changes.”

“When are we leaving?”

“Hank said a couple of days. They’re going to Phoenix to look for 53 foot trailers with mounted fifth wheels on the back.”

“They have a name?”

“They’re part of road trains. In the simplest terms a B-Train consists of two trailers linked together by a fifth wheel, and is typically up to 85 foot long. The fifth wheel coupling is located at the rear of the lead, or first, trailer and is mounted on a ‘tail’ section commonly located immediately above the lead trailer axles. In North America this area of the lead trailer is often referred to as the ‘bridge’. The twin-trailer assembly is hooked up to a tractor unit via the tractor unit’s fifth wheel in the customary manner. Our B-Trains will be longer but, if DOT tries to stop us we follow the advice from *Convoy*.

“The main advantage of the B-Train configuration is its inherent stability when compared to most other twin trailer combinations and it is this feature above all else that has ensured its continued development and global acceptance.

“B-Train trailers are used to transport many types of loads and examples include tanks for liquid and dry-bulk, flat-beds and curtain-siders for deck-loads, bulkers for aggregates and wood residuals, refrigerated trailers for chilled and frozen goods, vans for dry goods, logging trailers for forestry work and cattle liners for livestock.”

“Jeez, ask a simple question and get a lecture.”

“Are Andy and family ready to leave?”

“Are we letting him keep the M-21?”

“They can keep all the weapons in their possession. We can provide a reasonable amount of ammo, following TOM’s guidelines.”

“I wonder if he caught that warhead.”

“If he survived he’d be in his 90s and without medicine. Either way he’s dead.”

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Authors Note: The report of my death was an exaggeration. Both warheads hit Edwards. They were, after all, made in China. But, she did call me and I got dressed and went out front to wait. Put on SPF-60 because I didn't want to get a flash burn.

Adapted from Mark Twain
Endnote

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"Get 'em?"

"Yep. Give us a day to swap out the tires, check the brakes and lube whatever needs lubed and you can leave the day after tomorrow."

"I saw that."

"Saw what?"

"The Day After Tomorrow."

"Oh, the movie; Dennis Quade, right?"

"Yep."

"Never happen like it did in the movie... helicopter freezing in the air like that... ridiculous."

"Let's hope that the cold has lowered the level of the Atlantic. New Jersey and South Carolina are both on the Atlantic."

"They say the snow was down around I-70. Where is Sullivan, Missouri in relation to I-70?"

"South. Sullivan is on I-44 that connects St. Louis and Springfield. I-70 connects St. Louis with Kansas City and runs west northwest from St. Louis, according to Ginger."

"That's a pretty narrow line."

"Like said, we'll probably bring them back if that's the case. Andy can drive a B-train if we can find the right kind of trailer. We'll be short on a Tail End Charlie so we'll probably pull a middle-of-the-pack Hummer."

"Maybe Ramón can find another M1114."

“We cleaned out Camp Navajo.”

“We haven’t been to Fort Huachuca and it isn’t that far away.”

“Ramón can you find us more M1114s?”

“We cleaned out Camp Navajo.”

“Fort Huachuca isn’t that far away.”

“Which gun?”

“All you can find of M1114s and guns to mount on them.”

“No M249s, right?”

“Right.”

“We’ll be back.”

“Sometimes he reminds me of Arnold.”

“Ginger, will you explain to Andy that there may be a delay of an extra day or 2.”

“Why?”

“Because you’re his sister and he might take it better from you.”

“That wasn’t what I was asking. I want to know why there may be a delay of an extra day or 2.”

“We’re short on Hummers. I sent him to Fort Huachuca to get more M1114 and mounted guns.”

“We have the right number of Hummers for the number of semis.”

“True... but if the farm isn’t viable he could drive B-train that we could put together and drive that and Sheree could drive the Suburban.”

“Why wouldn’t it be viable?”

“The snow line is down to I-70. How far south of I-70 is Sullivan?”

“Not far enough to be positive. Ok, I’ll let him know.”

I like to read PAW/Patriot fiction, sue me. In *Normal*, Grand talked about the 10th Special Forces Group at Fort Carson, ergo, Colorado Springs. I had a list on my computer and verified that the 10th SFG was stationed at Fort Carson and near Stuttgart, Germany. Hmm... At 13.42 years, the radiation level should be down to 3mR/hr, lower than normal background, at Cheyenne Mountain and Fort Carson. The Special Forces are always the first units to get the new play pretties, ergo HK416s and HK417s with the matching AG-C/EGLM grenade launchers and the best optics, EOTechs, ACOGs, Aimpoint CompM4, ITL MARS and suppressors. Delta Force got them in 2004. The SEALs used them to kill bin Laden.

“I explained the delay to Andy and Sheree. I think they’re having second thoughts; especially when I pointed out the distance between I-70 and Sullivan.”

“They could stay here for the moment and we could check the farm out and you could communicate back here on 40 meters and tell him what you see and what you think. We could arrange for Security forces to escort them home if it’s viable. Part of that depends on how many M1114s and weapons Ramón brings back, and their condition.”

“Ramón’s back. He has a surprise.”

“I don’t like surprises.”

“You may just change your mind.”

“What are those things?”

“M1117 Armored Security Vehicles and each include an Mk 19, a M2A1 and a M240H.”

“We’re not taking those; they’d use too much fuel.”

“I didn’t expect you to take them, Cal. I got them for the ranch and you can take the 2 LAV-25A1s. Make them Point and Tail End Charlie.”

“Hank, are the LAVs ready to go?”

“Yes. We just need to finish the brake jobs on the new trailers and you can leave. We brought back new rotors, pads and axle bearings. It won’t take that long. You can leave tomorrow.”

Tomorrow! Tomorrow!
I love ya Tomorrow!
You’re always (I sometimes substitute only)
A day

A way!

I believe I've read every story TOM and Jerry published... before the war. I'm not going to Palmdale or Reno to find out how they are. We go eastbound tomorrow, if it ever gets here. At midnight, precisely, tomorrow changes its name to today and the day after tomorrow changes its name to tomorrow. Trust me on this, I'm almost positive.

"We're all done, Cal. You can leave in the morning."

Sucker must have been reading my mind...

Thanks, Hank. I'll tell Ginger and she'll tell Andy."

"I had the impression you inherited the ranch."

"I did, before I married Ginger. Arizona is a community property state."

"Still, generally speaking, the property that each partner brings into the marriage or receives by gift, bequest or devise during marriage is called separate property (i.e., not community property). One has to consider division of property, also known as equitable distribution, is a judicial division of property rights and obligations between spouses during divorce. It may be done by agreement, through a property settlement, or by judicial decree."

"Everything we gained after we were married would have to be 50-50; she works as hard as I do. It's irrelevant, we have a good marriage."

"We'll have the motors warmed up by 7:30 in the morning."

What the hell was that all about? Whatever; now is not the time to ask.

"Let Andy and Sheree know that we're leaving at 7:30 in the morning.

"I have both our bags packed and included cold weather clothing, just in case."

"Weapons?"

"All of them and plenty of all types of grenades, rockets and explosives. We might need them to clear a downed overpass or something."

"Food?"

"Mountain House; all the things you and I prefer. I put the word out that everyone was to take whatever Mountain House products they prefer. Keep your eyes open for someone turning red from eating too many freeze dried strawberry slices. There was no way to bring any frozen meat so we'll have to tough it out."

“How much food did you bring?”

“Twelve weeks. You originally said 6 weeks and I doubled that and brought enough coffee, tea and hot cocoa for the entire 12 weeks.”

One of the features of the drawbridge was our ability to lock it in an upright position. An L shaped bracket was mounted on top of the concrete that went up to the gate post. A similar bracket was mounted on the drawbridge and when it was raised, a $\frac{3}{4}$ inch bolt was used to bolt the drawbridge to the concrete bracket. Those brackets were protected by 3 inches of laminated road plate welded to the drawbridge.

“Mount up!”

They scurried to board vehicles and when everyone was aboard, I commanded, “Move out.”

With a Lav-25 in the lead, we headed for the I-10 junction 3 miles north. We maintained 25-50 meters between vehicles since the trailers were nearly empty and all had good brakes. I had changed my plans again, for safety’s sake and we connected with I-17 north. We’d passed through Flagstaff with the coal train and found it intact. I was more concerned about Albuquerque where we’d pick I-25 north.

Other than the too frequent potty breaks, we made good time, stopping 1 hour before sunset and set up camp. The security troops set up a night watch, had a quick meal and either went on duty or crawled into one of two tents they brought. Ginger and I had a pop-up tent trailer with a chemical toilet and accommodations for 4. We perked a pot of Folgers and boiled water for our beef stew entrée. The plan was to rotate through the entrees and sides, testing each in turn and determine which combinations worked best.

“Listen up. Our plans for today involve skirting Albuquerque on the west and then north. We’ll pick up I-25 north and get as close to Raton Pass as we can. The tanker will climb the pass with 2 Hummers and a LAV-25 in support. When they reach the top, the LAV-25 and both Hummers will remain to guard the tanker. Since we’re virtually unloaded, our trip up the next morning should be much faster than it would be having the loaded tanker with us.”

“Wouldn’t it be better to go now?”

“A convoy can only travel as fast as the slowest vehicle.”

“So?”

“Do the rest you agree with the suggestion?”

“Why the hell not? The sooner we get to the various locations we’re going, the sooner we’ll be home.”

“Any dissent?”

“No? Check your fuel level and fluid levels. We’ll leave as soon as that’s accomplished.”

“What’s the destination?”

“Fort Collins; specifically the 10th Special Forces Group.”

“Don’t the Special Forces, SOCCOM, get the best of everything?”

“That’s why I want stop there.”

“It’s next to Cheyenne Mountain. Surely the Chinese hit NORAD.”

“I’m sure they did; and they probably used the largest warhead available for their JL-2 missiles. For a while, I gave some thought to ether a 20mT or 25mT warhead. However the JL-2 is MIRV’d or carries a single 1mT warhead. As a result I don’t believe the Springs was hit very hard.”

“What if they aimed all of the warheads to targets in the Springs?”

“Instead of debating it, let’s go check it out.”

We stopped just beyond the top of the pass. The next day should provide answers to the questions raised. Who knows, we might even find the missing US Government.

The next evening we arrived in southern Colorado Springs, found the entrance to Fort Carson, entered and set up camp. The very first things we noticed were all the skeletal remains. Something was definitely wrong about what we found and my previous assumptions.

“What do you think?”

“I think I was wrong. From appearances, I’d speculate a MIRV’d missile with Enhanced Radiation warheads that wasn’t picked up by our defense systems in time to give people a sufficient warning. It would explain the negligible damage we see. It doesn’t explain why the government hasn’t exited Cheyenne Mountain.”

“What do you want to do first; check out the Mountain or gather up what we came for?”

“Locate the 10th Special Forces Group Headquarters, warehouses and bunkers. That Mountain isn’t going anywhere.”

The 10th Special Forces Group had all the goodies a person could ever want, given that the MREs and Tray Packs were really out of date. We loaded ammo in a pair of trailers and topped it with the lighter weight goods, like rifles, optics, silencers, etc. Our best guess was that that pair of trailers were loaded to about 45 tons each. In yet another change in plans, we decided to send the B-Train home to unload and return to meet us in KC. We detached a LAV-25A1 for escort duties and attached a tank trailer behind the LAV filled with off road diesel. What, they're going to arrest us for using the wrong fuel?

Next we checked the Mountain. We speculated that Fifth Columnists had come out of their shelters and planted explosives at both entrances to the Mountain tunnel and sealed the entrances completely. What good does it do someone to be in the best shelter in the country if you end up being trapped inside? Ginger radioed Ramón and advised him to be on the lookout for an LAV and B-Train. It was to be unloaded immediately, refueled and sent to rejoin us in KC. When he asked what was coming, she said 'play pretties'.

The Dome III – Chapter 38

Translation, World War XXV. There wasn't any point to try and open up Cheyenne Mountain just to count the bodies so we headed cross country on US 24 to join I-70 headed for Kansas City. We had our fingers crossed that I-70 would be open this far north. Fortunately, the delays in selecting the Tucson residents to live on the ranch had delayed us enough that any snow had melted.

They must have really rushed to turn around the B-Train and LAV because they caught up to us in Topeka, Kansas. Then again, we weren't traveling pedal to the metal or 24/7 like they were. We stopped for the night in the vicinity of Lawrence. What was it about Lawrence that was tickling my conscience? Oh, *The Day After*, the 1983 TV movie starring Jason Robards. A forewarning?

Strange, there weren't any Minuteman III missiles in Kansas and the missiles at Whiteman AFB were Minuteman IIs. During the Cold War, the United States Air Force Strategic Air Command 351st Strategic Missile Wing stood alert with Minuteman I and later, Minuteman II ICBMs starting in 1963 at Whiteman AFB Missouri. The wing was bestowed the lineage, honors and history of the World War II USAAF 351st Bomb Wing upon activation.

The 351st supervised missile training operations and coordinated construction of SM-30B (later, LGM-30B) Minuteman I missile facilities from 1 February 1963, to 29 June 1964. The first missile arrived 14 January 1964 and was placed its silo two days later. The 508th SMS became combat ready on 5 June and the 509th on 10 June 1964. The last flight of the fifteen missiles was accepted 29 June 1964, making the 510th operational. The wing then had 150 fully operational missiles. Meanwhile the 340th Bombardment Wing phased down for inactivation and 351st Strategic Missile Wing gradually assumed host-wing responsibilities at Whiteman AFB, between 1 July and 1 September 1963. Later, the Wing converted to LGM-30F Minuteman II missiles between 7 May 1966, and 3 October 1967.

The wing won the Colonel Lee R. Williams Memorial Missile Trophy for Calendar Years 1965, 1967 and 1973, as well as the SAC missile combat competition and Blanchard Trophy in 1967, 1971, 1977, 1981 and 1993. It was named SAC's "Best Minuteman Wing" in 1972.

On 1 September 1991, the wing was redesignated as the 351st Missile Wing and implemented the objective wing organization. It was relieved from SAC and reassigned to Eighth Air Force in the new Air Combat Command on 1 June 1992. It was again reassigned on 1 July 1993 to Air Force Space Command and assigned to the new Twentieth Air Force.

The wing and its three squadrons of Minuteman II ICBMs were inactivated on 31 July 1995 as a result of planned phase-out of the Minuteman IIs. What they didn't tell you in *The Day After* was that those were real launches of Minuteman III missiles from Van-

denberg AFB. Unable to get permission to use US Department of Defense stock footage of mushroom clouds, although able to get stock footage of Minuteman III ICBM test launches, producers were forced to recreate mushroom clouds using special effects.

The scenes of Air Force personnel aboard the Airborne Command Post, in the command center receiving news of the incoming attack, the B-52 crew, and the crew in the silo launching their missiles, are footage of actual military personnel during a drill, and had been aired in 1979 in a CBS documentary, "First Strike." In the original footage, the silo is "destroyed" by an incoming "attack" just moments before launching its missiles, which is why the final seconds of the launch countdown are not seen in this movie.

At first sight, Kansas City, Kansas didn't look all that bad to me. That changed when we came closer. From the looks of things, it had been an air burst that had, perhaps, gone off prematurely. The CEP was on the money for the Lake City Ammunition Plant, a very large place. But it was simply too high. So while one group went to find the Folgers plant and get 2 trailer loads of Folgers Classic, a second group went looking for grocery distribution warehouses and we went to the Lake City Plant. The warhead destroyed the manufacturing plants but the warehouses on the rail lines were mostly intact. Lake City manufactures 5.56mm through 20mm ammunition; 25mm ammo was 'no joy'. US DOD code meaning, "I have been unsuccessful," or, "I have no information."

The 25x137mm ammunition was manufactured by ATK. The question was, where? ATK Ammo is manufactured in the Lake City Army Ammunition Plant in Independence, Missouri and in the Radford Army Ammunition Plant in Radford, Virginia. Is that the New River Ordnance Works? The plants are capable of producing over 1.5 billion rounds of small caliber ammunition every year! Virginia is north of South Carolina, no? Hot Diggy Dog...

The primary mission of Radford Army Ammunition Plant (RFAAP) is to manufacture propellants and explosives in support of field artillery, air defense, tank, missile, aircraft and Navy weapons systems. RFAAP is currently operated by BAE Systems making it the sole supplier of TNT to the US Department of Defense. On May 12, 2011, the Army announced that BAE Systems had won the "facilities use" contract to become the operator of the plant. BAE Systems also operates Holston Army Ammunition Plant in Kingsport, TN. There're more, you know; check it out: <http://www.jmc.army.mil/> .

Just in case you survive WW III and need some ammo... for anything. We loaded 4 trailers one layer deep with 5.56mm through 12.7mm and filled the empty space above with lighter things, like Folgers, Charmin, Northern, Puffs, Kleenex and feminine hygiene and anything else we found that we were short of. Next stop was Sullivan, Missouri. While there wasn't any radiation, there was snow on the north sides of buildings and it was damned cold out.

We went looking for another B-Train with a Peter Car semi and a pair of 53 foot trailers. It took 2 days to find what we wanted and 8 days to get everything up to spec. New brakes, rotors, axle bearings, new tires (using the mounted spares), replacement hoses,

engine and transmission work. Then we found new tires and spent a day getting the old tires off the rims and the new tires mounted and balanced, replacing the spares we used.

Our next stop was Springfield Armory, Inc. in Geneseo, Illinois and we found more SA9102 actions than we had stocks for. We could find more M3A stocks. I'm not sure if we're ahead of schedule, on schedule or behind schedule but we're on the road headed for Clifton, New Jersey. Clifton was about 10-12 miles north of Newark and we all know who is in Newark, right? Ammoman!

Whenever the address includes a suite number, it's safe to assume it's not a warehouse. We bypassed the lock with large hammer and started going through files, drawers, etc. to find the address of the warehouse. The first warehouse referred to was in England, probably the point of origin.

"Got it," Ginger yelled.

"Is it in Clifton?"

"Nearby... Newark."

It was in a warehouse district and the building across the street had burned. A portion of a sign remained... *iscount Distributo*. (Discount Distributors d/b/a Ammoman). Nevertheless we got the tea. And turned south to locate Radford Army Ammunition Plant. 25x137mm ammo is heavy and loads were moved around before loading the 25mm ammo. Holston Army Ammunition Plant in Kingsport, TN was much closer than Charleston. We sent a LAV and a Hummer to check out Holston. We got a call to move on, they manufactured RDX and HMX.

Bigelow had impressive grounds and lots of tea. We finished topping off the ammo trailers and filled another with Bigelow products. We had room for more but we exhausted their inventory. After a day layover and rest, we headed for Murfreesboro, Tennessee. Our tails were dragging and we maintained an average road speed of 50mph.

We found 4 completed M82/A1Ms, 12 Barrett suppressors and loads of 10 round magazines. We added enough drag cases for the Barrett rifles and the Tac-50s, 416s and 338s. We were starting to get filled up and headed for NOLA to fill the last pair of trailers with coffee and cigarettes. Houston and Products Research, Inc. were next to last on my revised list. We found a straight truck (diesel) to haul the PRI products. The only good way to test them was to add them to fuel and try to run a diesel engine on it. We had a 12kw China Diesel generator that wasn't used much and we'd test the stabilized diesel on it after we recovered some old diesel from Phoenix.

We had visited and or traveled through Arizona, New Mexico, Colorado, Kansas, Missouri, Illinois, Indiana, Ohio, Pennsylvania, Virginia, North Carolina, South Carolina, Tennessee (twice), Arkansas, Texas and hadn't seen a living soul. That left us with find-

ing chili peppers seeds in New Mexico. We were on the final leg of our journey. After New Mexico, we would head home.

H & K has locations in Virginia, New Hampshire, and Georgia and we should have checked them out. We were in New Mexico for a second time, looking for chili pepper seeds, not all that far from home. We found people. There were Méxican soldiers in uniform carrying FX-05 Xihcoatl rifles and carbines and driving a combination of Méxican military vehicles and US civilian vehicles, mostly diesel crew cab pickups.

We were armed with 7.62x51mm rifles, among others, and had them out gunned. Having an OpFor out gunned doesn't count for much when they have you out numbered 100:1. We retired (retreated). The Vaqueros would just have to settle for the jalapeño, poblano, New Mexico (chile colorado), Anaheim and serrano. We had them covered up to 23,000 SR (hottest serrano).

"Ranch, we're one day out and will be coming in from New Mexico on I-10."

"Roger, take care going through Tucson, the widows and he have found more survivors and are attempting to bargain their way onto the ranch as part of a prisoner exchange."

"That doesn't make sense."

"They'll let the others go if we will accept them. I didn't know what else to call it."

"Blackmail."

"10-4."

I don't know if you've noticed, but the second and this installment of the tale have more curves than Wolf Creek Pass or Red Mountain Pass which is known for being treacherous in the wintertime due to the steep 8% grade and switchbacks on the north side facing Ouray, though the entire road is paved. In addition, there are very few guardrails on this side and passing is difficult, if not impossible. I should probably finish up with what happened with Kraut and the widows... but we're not home yet so I don't know. It could be over quick or take a while. And... if there are Méxicans military in New Mexico why aren't they in Arizona?

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The Dome IV – Chapter 39

I should probably finish up with what happened with Kraut and the widows... but we're not home yet so I don't know. It could be over quick or take a while. And... if there are Méxicans military in New Mexico why aren't they in Arizona? It was an interesting question and I took it to Dawn's father, John immediately after we arrived at the ranch.

“John, coming across New Mexico we saw Méxican Soldiers, in uniform and carrying those FX-05 Xiuhcoatl rifles and carbines and driving a combination of Méxican military vehicles and US civilian vehicles, mostly diesel crew cab pickups. Have you heard anything?”

“I haven't but I'll check it out if I can use 2 Quarter Horse stock horses. Give me 4 days to check it out and get back to you.”

“Where are you headed?”

“Southwest and it's better if you don't know the rest.”

“Going to see your cousins?”

“In a manner of speaking, yes.”

“Do you have everything you need?”

“Could you spare an 1886 with a 24 inch barrel and some of those Mountain House Pouches?”

“The pouches are in Warehouse 2, help yourself. I'll get the rifle and ammo. How much do you need?”

“One hundred rounds of .45-70 and 300 rounds of .45 Colt. I'll hang panniers across the saddle on the second horse to carry the supplies.”

“How soon are you leaving?”

“How fast can you get me the rifle and ammo? I can be ready to go in 15 minutes.”

It only took me 10 minutes to get the 1886 and the 400 rounds of ammo. It was heavy and James helped me get it from the snow fence storage building and Dome shelter. The ammo was Remington, full power... the stuff that we got for 89¢ a round, delivered and most for 89¢ plus freight or 93¢ delivered. The panniers were packed and he rode out the gate to get around the ranch and presumably cut cross country to the Res.

Both saddles had 2 scabbards as did all of our saddles. John had a 40 channel portable CB, primarily to notify us of his return, so he wouldn't be misidentified. The next day,

everyone but security forces and 4 Vaqueros engaged in unloading our haul from the cross country trip. That took from sunup until supper time. I called a meeting in the Community Building for 7pm and when everyone was there, announced the bar was open. Three of the security force had been bartenders at one time or another and assumed the task of handing out the beer, mixed drinks and soft drinks.

"I called this meeting to cover our trips and some of the things we learned. We presume the government is sealed in Cheyenne Mountain because someone, possibly Fifth Columnists, sealed both entrances to the tunnel with explosives, trapping people in the mountain. We collected 2 cargo vans of supplies from the 10th Special Forces Group Headquarter warehouses. That was the load we sent back here. Thank you for the fast turnaround, they met us in Topeka, Kansas.

"We got 2 trailer loads of Folgers in Kansas City and quite a bit from grocery distribution warehouses. Although the target was the Lake City Ammunition Plant, the warhead apparently pre-detonated at a higher altitude sparing their warehouses. We collected 5 calibers of ammunition we can use. We kept shifting loads to keep the trailers loads below 40 tons.

"We next checked Andy's farm and it's too cold to be farmed for the foreseeable future so we put together another B-Train for Andy to drive. Our next planned stop was Springfield Armory in Geneseo, Illinois where we collected several of the Super Match parkerized actions/barrels and various accessories.

After that we stopped in Clifton, New Jersey and we were able to locate their warehouse in Newark where we cleaned them out. Ammoman was located across the street and it was a burned out shell. We determined that ATK manufactured 25mm ammo at a plant in Radford, Virginia and turned south to locate Radford Army Ammunition Plant for the 25x137mm ammo. We also checked out Holston Army Ammunition Plant in Kingsport, Tennessee but they manufactured RDX and DMX explosives so we headed to Charleston, South Carolina and clean out the Bigelow warehouse.

"We had those 6 M82A1Ms and I wanted more so we stopped in Murfreesboro, Tennessee where we found 4 completed M82A1Ms, 12 Barrett suppressors and loads of 10 round magazines. We added enough drag cases for the Barrett rifles and the Tac-50s, 416s and 338s. We were starting to get filled up and headed for NOLA to fill the last pair of trailers with coffee and cigarettes.

"Next, we went to Houston and Products Research, Inc. We found a diesel straight truck to haul the PRI products. It occurred to me that H & K had locations in Virginia, New Hampshire, and Georgia and we should have checked them out, but we were tired and very close to home.

"We were in New Mexico for a second time, looking for chili pepper seeds, not all that far from home, when we found people. There were Méxican soldiers in uniform carrying

those FX-05 Xiuhcoatl rifles and carbines and driving a combination of Mexican military vehicles and US civilian vehicles, mostly diesel crew cab pickups.

“We were armed with 7.62×51mm rifles, among others, and had them out gunned. Having an OpFor out gunned doesn’t count for much when they have you out numbered 100:1. We retreated and came home without the chili pepper seeds.”

“I understand that Kraut has been giving you problems and it has something to do with a prisoner exchange. Fill me in.”

“Cal, apparently they found several more families they had been unaware of and took them prisoner as bargaining chips to be allowed on the ranch.”

“That’s not going to happen. The additional families may or not be accepted since we have the room. But those East German SOBs aren’t going to end up on this ranch. I think the best approach might be to kidnap one of those widows and subject her to waterboarding. I understand that no one can resist that for very long.”

“They can’t; in the most common method of waterboarding, the captive's face is covered with cloth or some other thin material, and the subject is immobilized on his/her back. Interrogators pour water onto the face over the breathing passages, causing an almost immediate gag reflex and creating the sensation for the captive that he is drowning. Victims of waterboarding are at extreme risk of sudden death due to the aspiration of vomit. Vomit travels up the esophagus, which can then be inhaled.”

“Would we be better off kidnapping Kraut or one of the widows?”

“Kraut probably has the experience of SERE training. I’d go for a woman.”

“What’s SERE?”

“Survival, Evasion, Resistance, and Escape (SERE) is a program, best known by its military acronym, that provides US military personnel, US Department of Defense civilians, and private military contractors with training in evading capture, survival skills, and the military code of conduct. Established by the US Air Force at the end of the Korean War (1950–53), it was extended during the Vietnam War (1959–1975) to the US Army, US Navy, and US Marine Corps. Most higher level SERE students are military aircrew and special operations personnel considered to be at high risk of capture.

“The US Air Force SERE School was located at Fairchild AFB, Washington, while SERE Training for the US Army was located at Fort Bragg, North Carolina and at Fort Rucker, Alabama. The Navy and Marine Corps SERE School have known locations at the US Navy Remote Training Site at Warner Springs, California, the remote Marine Corps Mountain Warfare Training Center at Bridgeport CA and Portsmouth Naval Shipyard in Kittery, Maine.”

“We’ll defer a decision on that until John returns. He should be back in 4 days. I have him checking on the situation with the Mexican military being in the US.”

“They’ve been doing that for years, in so-called hot pursuits.”

“But never on this scale. We were outnumbered about 100:1.”

“They’re not just in New Mexico. They’re also in California, Arizona and Texas. And, according to my sources, they’re real soldiers, not cops in uniform.”

“What do you mean?”

“For years the Mexican Army was nothing more than policemen dressed up as soldiers. One could tell by gaging their actions. The people I know southwest of here were never caught trying to cross the border by the Mexicans, only the US Border Patrol. You have to understand that before the Treaty of Guadalupe Hidalgo, the tribe lived in an area that ended up on both sides of the new border. Add the Gadsden Purchase to that and more of the tribe was north of the border.

“Over the last 50 odd years, until the war, the US government kept increasing its efforts to prevent crossing the border. That applied to everyone; illegal immigrants and our people crossing for religious purposes. With the border fence, they were effectively blocked from their spiritual homelands.

“Apparently Mexico wasn’t targeted in the war. It’s logical to think that many US citizens would have been trying to cross the border to get to warmer places with less radiation. Eventually, holes were opened in the border fence and people began streaming south. That forced the country of Mexico to change those policemen into real soldiers. They had good firearms, since H & K initially thought the FX-05 was a clone of the G-36.

“There were holes in the border fence in all the states where the fence existed and when the radiation faded, Mexico began recruiting a real Army. Eventually, they invaded the US looking for salvage or whatever. One man’s junk is another man’s treasure, you know. You do know that many US vehicles are manufactured in Mexico, right? Those crew cabs you saw were vehicles manufactured in Mexico before and after the war and purchased by the Mexican government using proceeds from what little oil they were selling from a new, larger oilfield they opened.”

“So the 3rd world countries are running the world?”

“Let’s say anyone who lacked nuclear weapons and thereby wasn’t a target. The word is that the Chinese SLBMs had the range, but not the accuracy attributed to them. Russian missiles, on the other hand, were both accurate and deadly. Some reportedly had CEPs measured in meters. Both sides were lying in the end. The US had full capacity on its Ohio class SSBNs and the Russians ‘unretired’ a bunch of the SS-18s.”

“What is México’s aim?”

“Reconquista. According to the United States Census Bureau, as of 2009 and 2010, six out of seven US states with highest proportions of people of México origin were in the Southwestern United States, including the seven modern-day states that used to be part of México – California (30%), Arizona (25.9%), New Mexico (28.7%), Texas (31.6%), Nevada (20%), Colorado (15.1%), and Utah (9.4%). 31% of México residents of the six states (CA, AZ, NM, TX, NV, CO) were born in México, the majority of the remaining 69% being second- and higher-generation Americans of México ancestry. The four southwestern Border States had only 23% of population of the country, but were home to 65% of all first-generation México immigrants.”

“If we don’t oppose them, do you think I could get a land grant for our 6 sections?”

“Hah!”

“Anyone have a clue what the other Vaqueros will do?”

“Most families were living here before the Treaty of Guadalupe Hidalgo and the Gadsden Purchase and just want to be left alone to make a living and put food on the table. They don’t want to be singled out according to ethnic heritage.”

“Is that a problem here?”

“Definitely not. That’s not to say that there wasn’t resentment in the past. It was mostly resentment at Santa Anna. Historians also report that he is ‘perhaps the principal inhabitant even today of México’s pantheon of those who failed the nation.’ His centralist rhetoric and military failures resulted in México losing just over half its territory, beginning with the Texas Revolution and culminating with the México Cession of 1848.”

“But, would they fight the México soldiers?”

“Unknown. My best guess would be yes, to preserve what they have. Ginger and you provided above and beyond for all of the people living here including life’s necessities, pure air, shelter, water, food, a means of defense, and transportation. Find out. Do a secret poll, asking the questions you need answers to on something akin to a ballot requiring only checkmarks or Xs.”

“Ramón, you should have an idea what we need to know. Can you handle the poll?”

“You’re not overlooking my México heritage?”

“Everyone either lived here in the beginning or came here from somewhere else. It’s irrelevant.”

“Don’t tell that to an Indian, Cal.”

The poll was unrevealing. Ramón’s first question dealt with ethnicity and one option was North American, which everyone checked. Canadians and Méxicans are North Americans. The next question was would you defend the ranch against Méxican soldiers, 2 choices, yes, no. All selected yes. The third question was would you shoot a Méxican soldier to protect the ranch, 2 choices, yes, no. All selected yes. The fourth question was would you kill a Méxican soldier to protect your family, 2 choices, yes, no. All selected yes. The final question was would you kill a Méxican soldier to protect the ranch, two choices, yes, no. 50-50.

“Sorry Cal, I must have worded it wrong.”

“Ramón, we’ve reviewed the poll questions and agree that you worded it wrong. We’re no worse off than before. We might be a little ahead since we know they’ll kill the soldiers to protect their families but not all will to protect the ranch. We need to do a Joseph Goebbels and convince everyone that protecting the ranch is the same as protecting their family.”

“Is it?”

“Who provides the life’s necessities, pure air, shelter, water, food, a means of defense, and transportation?”

“The ranch...”

“Are you asking me or telling me?”

“I guess I’m telling you.”

“If the Méxican Army overruns the ranch, what will happen to the food stores, munitions and the livestock?”

“They’ll take it all, right?”

“That would be my guess. I believe they’d slaughter all of the livestock for meat, take the food to feed the Army and use the munitions against any remaining US citizens.”

“I’ll make them believe.”

“And, I’ll help,” Hank added.

“You should run for political office Cal.”

“Not in a million years Ginger.”

“That time you spent learning to become a leader is paying off, big time.”

“Really?”

“Yep.”

I didn't have a lot of confidence that we'd get through the two problems facing us, Kraut and the Mexican Army, unscathed. We had own armor, of a sorts... 4 LAV-25s and 4 M1117 Armored Security Vehicles. What did the Mexican Army have? Crew cab pickups were a given, but the military vehicles? No tanks, but armored personnel carriers on par with our LAVs and Armored Security Vehicles; and, artillery up to 155mm, self-propelled and towed. Other weapons were generally on par with those we had assembled. If Wikipedia were still up, you could look up the Mexican Army and see all the US vehicles manufactured in Mexico that their Army used.

That 100:1 ratio was probably low. On the other hand, if they had invaded California, Arizona, New Mexico and Texas, maybe not. We should have gotten those H & K rifles... When you screw up, you can deny it or correct the problem. It wasn't like we were short on 5.56 or 7.62 ammo, so we just need the rifles. H & K had 3 US locations and 2 were sales offices, Commercial & Law Enforcement Sales were at 5675 Transport Boulevard Columbus, Georgia 31907 USA; Military & Federal Law Enforcement Sales were at 19980 Highland Vista Drive, Suite 190 Ashburn, Virginia 20147 USA; and, logistically, Manufacturing (USA) was at 27 Piscataqua Drive Newington, NH 03801 USA. It had to be the furthest location, didn't it? Near as I could tell using an atlas, it was a one-way distance of 2,700 miles, without detours.

“Ramón, we need you to do something while we stay here and take care of the problem in Tucson.”

“What?”

“Heckler and Koch have 3 locations in the US. One is a manufacturing facility and it's located at 27 Piscataqua Drive Newington, NH. We need you to take a B-Train and collect every rifle and carbine you can find at the location along with all the magazines for either weapon. My best guess is that it's 2,700 miles one-way without detours. I think a majority of the Russian weapons used during the war were aimed at the industrial northeast so plan on detours.”

“When do we need to leave?”

“Yesterday, if it were possible. It's not, so no later than the day after tomorrow at dawn. The B-Train in the best condition is the one we put together in Missouri for Andy to pull. Get with Hank and select the best Peterbilt tractors to pull the B-Train and tanker. You better plan one 8,000 gallon tanker of diesel and plan on using 3 of those 4 M1117s you

found. Tell Hank that I said that the mechanic should drive the B-Train Tractor and take the same spares and tools as he took the last time. What's the crew on a M1117?"

"Three."

"Alright, half your staff, 12 security people, including you, will go. Nine in the M1117s, 1 in the B-train and 2 in the tanker. I don't care which vehicle you ride in. One of the seniors is a retired gunsmith and he glass bedded the Springfield Armory actions in the McMillan M3A ladder stocks and installed the Surefire Fast Attach mounts, the Harris bipods, the Sadlak scope mounts with A.R.M.S. throw lever rings and Leupold Mark 4 ER/T 4.5-14x50mm M1 Front Focal scopes plus EOTech Holographic sights. Grab those and get them sighted in. You have your M21 and I have a spare that I can loan to the 12th person. We have enough of the UNS to equip half the rifles and the other can use the spare MUNS that I was going to put on the M82A1Ms."

"What about Kraut?"

"Don't worry about it; we'll take care of Kraut. And, don't worry about the Mexican Army. From something John said; the cousins are raising hell with those that crossed into Arizona. Actually that's the main reason we're sending you; to get them reliable firearms. Oh, get all the AG-C/EGLM grenade launchers you can find. If you know somewhere to get 40x46mm grenades on your cross country trip, don't let the quantity we have on hand stop you from getting more."

"Don't forget that the Mexican Army uses the same rifle grenades."

"I know and I think the cousins are collecting them. While there's nothing wrong with the FX-05, we'd all feel better if they had genuine H & K firearms."

"I heard that."

"Ok, you heard me. What bothered you about what I said?"

"I thought the MUNS were for the grandchildren."

"They are, but none have been born yet and I doubt they'll mind."

"You assume much. What makes think we can take out Kraut and the 6 widows?"

"Would you agree that Kraut presents a clear and present danger to the ranch as much as the Mexican Army does?" (Freedom of Speech test.)

"Well, of course."

"What are we going to do to Mexican soldiers when we have the chance?"

“Kill them?”

“Absolutely.”

“And, since Kraut and the widows are a clear and present danger to the ranch we’re going to kill them too?”

“By George, she’s got it.”

“My Fair Lady, 1964.”

“Yep.”

“How?”

“We capitulate.”

“Huh?”

“I’m going to tell him, ‘ok, you win, let them go’.”

“Why should he believe you?”

“I’m going to lower the drawbridge and tell them to come up whenever they’re ready. When he sees the drawbridge down, I believe he’ll be less suspicious of what I said. When they’re here, we go to Tucson and interview his hostages and bring them here if we agree they belong.”

“But the hostages will be out for revenge!”

“They’ll get over it when we show them the bodies.”

“You’re going mano-a-mano with him?”

“Nope. Actually, I thought I’d shoot him in the back; all of them when they’ve disembarked their vehicles. I could probably use a M240B, but just in case they’re wearing body armor, maybe I should use the Ma Deuce.”

“That’s cold, Cal.”

“Yep.”

“Is that all you can say?”

“Yip.” (Jerry brought that up for *Expedition*.)

The thing about Kraut was that I had my mind made up and I didn't want anyone confusing me with the facts. I figured I was 3 standard deviations toward being right. In a normal distribution (Bell curve), 3 standard deviations from the mean equal 99.73 percent of the population. Not positive, like I said when I said, "I can't prove it", but sure enough based on the current facts presented to me to act on my feelings. If you can't tell if the snake is poisonous, do you let it bite you to find out or simply shoot it?

Well the South side of Chicago
Is the baddest part of town
And if you go down there
You better just beware
Of a man named Leroy Brown

Now Leroy more than trouble
You see he stand 'bout six foot four
All the downtown ladies call him "Treetop Lover"
All the men just call him "Sir"

And he's bad, bad Leroy Brown
The baddest man in the whole damn town
Badder than old King Kong
Meaner than a junkyard dog

Now Leroy he a gambler
And he like his fancy clothes
And he like to wear his diamond rings
On everybodys nose
He got a custom Continental
He got an Eldorado too
He got a 32 gun in his pocket for fun
He got a razor in his shoe

And he's bad, bad Leroy Brown
The baddest man in the whole damn town
Badder than old King Kong
Meaner than a junkyard dog

Well Friday bout a week ago
Leroy shootin' dice
And at the edge of the bar
Sat a girl named Doris
And ooh that girl looked nice
Well he cast his eyes upon her
And the trouble soon began
Leroy Brown learned a lesson
'Bout messin' with the wife of a jealous man

And he's bad, bad Leroy Brown
The baddest man in the whole damned town
Badder than old King Kong
Meaner than a junkyard dog,

Well the two men took to fightin'
And when they pulled them from the floor
Leroy looked like a jigsaw puzzle
With a couple of pieces gone

And he's bad, bad Leroy Brown
The baddest man in the whole damn town
Badder than old King Kong
Meaner than a junkyard dog

Jim Croce – On Thursday, September 20, 1973, during Croce's Life and Times tour and the day before his ABC single "I Got a Name" was released, Croce, Muehleisen, and four others were killed when the chartered Beechcraft E18S they were traveling in crashed while taking off from the Natchitoches Regional Airport in Natchitoches, Louisiana. Others who died in the crash were charter pilot Robert N. Elliott, comedian George Stevens, manager and booking agent Kenneth D. Cortose, and road manager Dennis Rast. Croce had just completed a concert at Northwestern State University's Prather Coliseum in Natchitoches and was flying to Sherman, Texas, for a concert at Austin College. The plane crashed an hour after the end of the concert.

"Calling the ranch."

"This is the ranch."

"Who am I talking to?"

"Cal."

"Where's Ramón?"

"He's not here."

"Good, maybe we can do business."

"Yes you can move to the ranch. Ginger and I will interview your hostages and see if any of them qualify as additions to the ranch."

"How do I know you're telling the truth?"

The Dome IV – Chapter 40

“Well, if you were anywhere near the ranch, you could see with your own eyes that the drawbridge is lowered and the gate is open.”

“Yeah, we can see that.”

“Anyway, I sent Ramón away so I could do the negotiations. You have those people with you?”

“What people?”

“The hostages.”

“No, we left them in Tucson, right where we found them. I have the addresses written down and you can round them up yourselves.”

“Ok, come on down. Park in front of the Dome and hand the paper with the addresses through the window to Ginger. I’ve got chores to do. She will assign apartments according to need.”

“What kind of chores?”

“We’ve been on the road and I need to take care of the trash.”

I’d moved one of the M2A1s from the front pintle mount to the rear pintle mount (a pintle mount is a fixed mount that allows the gun to be freely traversed and/or elevated while keeping the gun in one fixed position). Ginger would be facing me and move when I was ready to open fire. Just in case, she was wearing body armor in case they tried to shoot her.

They were driving a SUV and all of them were crammed into the vehicle. It was pulling a U-Haul trailer, presumably with their personal possessions.

“Where’s Cal?”

“Taking care of the trash. Got the list?”

“Here.”

“Your stuff in the U-Haul?”

“Ja.”

“I’ll get some people to help unload it and move it to the apartment building.”

“Danke.”

While Ginger appeared to be rounding a few hands to help with their personal possessions, she was actually getting out of the line of fire. There were farm hands standing near the Dome where we'd prepositioned them and to watch her; Kraut and company were facing away from me. Trusting souls...

Braaaaaaat Braaaaaat Braaat Braaat Braaat

“Someone give me a hand with the trash.”

“Where do you want them Boss?”

“Lay 'em out in a row right about there, Hank. Ginger, do you have the list?”

“It's blank piece of paper.”

“He could have been bluffing, but let's not chance it. I need 2 Hummers, 1 with an M2A1 and 1 with an Mk 19; crews of 3.”

Tucson was occupied alright. Mexican soldiers, mostly driving crew cab pickups. We saw at least one each of the following: Humvee, Chevrolet Silverado, Ford F-Series, Dodge Ram, Yamaha Rhino, Chevrolet Cheyenne (Silverado in Mexico) and Kodiak. We left Tucson faster than we arrived; they were less than 50 miles away.

“Lock it down; the Mexican Army is in Tucson. Gates, posts, Cat, drawbridge and someone reposition the M2A1.”

“Already done Cal. I suspected you wouldn't find any survivors and had the bodies dumped in a slit trench across the road. It will only take a few minutes to cover it over.”

“Yeah, do that. You'd better have more munitions moved to the towers while someone is doing that. Did you recover his Barrett?”

“He had 2, both M82A1Ms.”

“Ok, we picked up soft mounts and a lot of magazines in Tennessee plus four more of those rifles. Add a soft mount to each rifle and put 40 magazines in each tower. We can use the M82s if they're out of range of the Mk 19s.”

“Did you notice the tower improvements?”

“Missed that. What did you do?”

“Added 3 layers of road plate to all four sides.”

“That’s about 76 mm. Will it do any good?”

“It can’t hurt.” (M2 AP penetration: 500 meters: 0.75 in (19 mm) 1,200 meters: 0.39 in (10 mm); M8 API penetration: 500 meters: 0.63 in (16 mm) 1,200 meters: 0.32 in (8 mm); M20 APIT penetration: 500 meters: 0.83 in (21 mm) 1,200 meters: 0.43 in (11 mm)).

“Ginger can you get the ladies to start loading all the different magazines?”

“I’m on it.”

“While you’re at it have one of the ladies get a stock pot of pinto beans simmering and cook up some Spanish rice. I think that would go down pretty good if this thing drags out. Oh, and probably flour tortillas.”

“I’ll get the food started first and get the other women loading magazines. How do you want the .50 caliber loaded?”

“Half and half. Those Mk211 rounds should do a number on engines.”

“I’ll get Dawn, Kathleen and Jennifer in the shelter, too.”

“Make sure they’re armed. And check with the other ladies and if they’re pregnant, add them to the shelters.”

“Do you actually expect that fast of a reaction from the Mexican Army?”

“I don’t know if they saw us leaving Tucson and I’d rather be safe than sorry. We need to bring up the LAVs from the garage and the remaining M1117. With those and the hummers, we have respectable opposing force.”

“They can’t shoot through the drawbridge.”

“Neither can the Mexican Army. The difference is that they can bring in the self-propelled 155mm artillery. I saw PzH 2000s and ARCHER artillery systems in New Mexico. But you’re right, we can leave the LAVs and the M1117 garaged.”

“Are we actually going to be fighting a real, honest to goodness mano-a-mano combat situation?”

“Are any of the boilers running?”

“Nope; they’re all shut down.”

“They might drive right on by on I-10. Prepare for the worst and hope for the best. We’re past due for some actual good news we didn’t fall into or make happen. I saw a program

on Wings, later Military and still later American Hero's Channel comparing self-propelled artillery. The latest iteration of the PzH 2000 was a 2 man operation and the ARCHER artillery system was similar with a bad case of anorexia nervosa."

"Are we the only people who survived the war?"

"Apparently some of the tribes survived, if you believe John. And, obviously the Méxicans survived. Key members of the government apparently survived until they tried to leave the Mountain. With Phoenix and Tucson taking hits, anyone that knew about the ranch may not have. But there were people in Utah so there have to be people who had sufficient preps to weather the radiation fading.

"People like us, preppers, probably read some of the PAW fiction and at least had salvaging in the back of their minds. Don't count possible survivors out for the moment. We have some surviving from Tucson living here. I'm developing a new attitude about surviving doomsday, Ginger, them that can, do. We help those that ask for help; perhaps even some who don't ask for help like John's 'cousins'. That's why I sent Ramón to New Hampshire, so we can arm the Indians."

"Just don't give them booze."

"Every Injun is a drinkin' Injun like Ira Hayes? Bull! Ira Hayes was drunk because of Joe Rosenthal, not because of anything he did."

*Then Ira started drinkin' hard
Jail was often his home
They'd let him raise the flag and lower it
Like you'd throw a dog a bone!
He died drunk early one mornin'
Alone in the land he fought to save
Two inches of water in a lonely ditch
Was a grave for Ira Hayes.*

"How do you know? Let me guess, you looked it up on Wiki before the war, right?"

"Damn right. The only person alive from the flag raising that knew his name was under a death threat from Hayes not to reveal his identity. The Corps threatened to punish the guy for not obeying a direct order from the President and he identified Hayes. Hayes couldn't handle the stress of the publicity and started drinking, eventually dying from alcoholism. That Tony Curtis movie *The Outsider* really showed how it was for Hayes."

"How do you know? You couldn't have learned that on Wiki."

"Footnotes at the bottom of the page referred to the 1961 movie *The Outsider* starring Tony Curtis. I looked up the movie on the Internet Movie Database and read the comments which said it was Curtis' best role and an accurate portrayal of Hayes life.

“All that extra information I gave you three about *Colossus: The Forbin Project* came from the Trivia about the movie on the Internet Movie Database about the movie. You don't have to be Albert Einstein if you know how to search the Internet.”

“I hope you saved all that information on the Hard Disc Drive because we don't have the Internet anymore and everyone will think you're stupid.”

“Smart enough to marry you.”

“Touché.”

“We heard from Ramón. He said they're about halfway to the location.”

“They're making good time, 1,350 miles in 2 days. If they don't have to detour, they'll be there in 2 more days. They should be able to load what's available in a half-day and be back in about 6½ days.”

“Cal, don't count your chickens....”

“You're right, Hank; sometimes when I hear good news I extrapolate it too far into the future. How is everyone doing? Getting enough to eat, staying warm, bored out of their minds and wants something more than beans, rice and flour tortillas? We'll have a chicken dinner for everyone when they're relived and maybe a pot roast, Swiss steak or Salisbury steak.”

“How about fixing some tacos, chiles rellanos, enchiladas, tamales and some mole sauce?”

“Ginger?”

“Some of that is easy, but mole takes a while to prepare. I'd better get on it; Community Center?”

“Yes. Most of the magazines should be loaded by now.”

“We'll have more to load when Ramón returns.”

“We'll just pass out the rifles and carbines, grenades launchers, magazines and the ammo and grenades. They can load their own. The military ammo is all on stripper clips with 1 guide per bandoleer.”

“Do we have enough 40mm grenades to pass them out?”

"I told Ramón, 'if you know somewhere to get 40×46mm grenades on your cross country trip, don't let the quantity we have on hand stop you from getting more.' He'll be keeping an eye open."

"Ammo and munitions haven't been stored at National Guard Armories since Bonnie and Clyde. Actually, it's because of Bonnie and Clyde."

"Yeah, well, they'll have the ammo distribution points written down and Ramón will know where to look for the information."

Ramón et al., returned 13 days later. Not only did they have the B-Train and tanker, they had a HEMTT towing a trailer. Both the HEMTT and trailer had 20 foot containers. Ramón explained that they identified likely locations on the way east. He said that either H & K had a large inventory or they'd received a shipment from Germany and there more HK416s, HK417s, AG-C/EGLM grenade launchers than he ever imagined.

"What are the HEMTT and trailer with the container for?"

"You said to get all the 40×46mm grenades we could find. We picked up a HEMTT with a container aboard towing that trailer. Both were empty. On the way home, we proceeded to fill them. Picked up some more of the M855A1 in military packaging along with I don't know how many containers of grenades. Both containers are full to the top and overloaded. Getting the stuff and driving slow because being overweight slowed us down.

"From time to time, we saw people and stopped and talked to them. I told them to look us up if they were ever near Eloy, Arizona. I saw a lot of 5.56 and 7.62 rifles and no small number of 12 gauge shotguns and .45acp pistols. That's the other thing we picked up at H & K, 9mm and .45acp pistols."

"Ammo?"

"A lot more 9mm than .45acp but we got all the .45acp we could find. Hit some of those big gun dealers like MidwayUSA. That's why we're overloaded, the .45acp. We also took all the hollow point 9mm +P."

"What's the .45acp?"

"Ball and hollow point. Most of the ball is 230 grain."

Most 124 grain +P 9mm hollow point has energy similar to .45acp ball. Grand pointed out in *Normal* that the Air Force Security Forces used Golden Saber hollow point. We loaded the Browning Hi-Powers we carried for backup with 124 grain +P Speer Gold Dot. Since TOM had changed from 230 grain Gold Dot to 200 grain +P Gold Dot, we'd followed his example. We had common tastes in firearms, so used *his* ammo of choice.

The Speer Gold Dot tables show that the 124 grain +P 9mm has 410 ft-lb of energy at the muzzle while 230 grain .45acp has 404 ft-lb at the muzzle and the 200 grain +P .45acp has 518 ft-lb. More energy is better, right? The 230 grain FMJ will usually put your target on their butt. The 230 grain God Dot ensures that and the 200 grain +P is double indemnity insurance. I know all about double indemnity insurance, right?

Those 13 additional days waiting for Ramón to return were stressful. He hadn't radioed again until he was back, so we didn't know if his mission was a success or failure. Magazine fed rifles and carbines are no good without magazines. The HK416 could use M16 magazines while the HK417 could only use H & K magazines. Obviously the mission was a greater success than anticipated.

"John, I believe we have enough weapons to equip most of your 'cousins' to the southwest."

"What about the Pima group?"

"I don't have an exact count of the H & K weapons so it would depend on how many Pima survived."

"The total O'odham number about 20,000 before the war. I haven't been to the Gila River Indian Community since the war. The Tohono O'odham community suffered about 50 percent losses of their population. The Salt River Pima-Maricopa Indian Community undoubtedly had high losses since the community borders the Arizona cities of Scottsdale, Mesa, and Fountain Hills."

"A few thousand then?"

"Very few thousand; probably, more likely, several hundreds."

"In that case I believe we can arm everyone that wants a weapon. We got HK416s, HK417s, AG-C/EGLM grenade launchers, magazines, .45acp handguns plus ammo and grenades."

"Bayonets?"

"Nope."

"Bummer. I guess we'll have to use our own knives."

"So, how many firearms, 2,500? Three thousand?"

"One rifle with a grenade launcher and one handgun per person. You didn't mention shotguns. No matter, they're white men's weapons."

"How are we going to handle distribution?"

"I'll head out like before and point them to the ranch in groups of about a dozen. When we have the Tohono O'odham community equipped we'll do the Gila River Indian Community survivors followed by the Salt River Pima-Maricopa Indian Community."

"What about the Apaches?"

"If you want them, you do it."

"Navajos and Hopi?"

"They'd probably end up turning the weapons on each other."

"Anybody else?"

"Not off the top of my head."

"We'll get everything sorted and get ready to pass it out."

"You know Cal; it could be that the collective tribes outnumber the other surviving citizens."

"I'm well aware of that John. Aside from helping the various tribes to defeat the Mexican Army, I have an ulterior motive."

"And that would be?"

"That land grant of these 6 sections I mentioned earlier and you replied 'Hah!'."

"Assuming the remaining US citizens prevail, I'd be willing to bring it up to the Council."

"Fair enough. Do you want to put together a string of pack horses to haul some of the weapons and ammo with you when you return to the southwest?"

"I'll take a HK416 and HK417 with grenade launchers, magazines, silencers and 2 cases of ammo per and 1 case of HEDP grenades. One extra horse with Panniers should be enough over what I took last time. The reason I had the second horse saddle last time with the Panniers over the saddle was so I could switch mounts. There are 72 grenades per case, right?"

"Right."

"Damn."

"What?"

“I just remember those Morgans and Tennessee Walking horses Kraut mentioned. We never recovered them.”

“They weren’t there to recover.”

“He was lying?”

“Not at all; all I said was that they weren’t there to recover. That’s why he had to bluff about having hostages.”

“What happened to them?”

“They were captured to be used to trade for rifles and ammunition.”

“Anybody I know?”

“I don’t know if you know them, but you do know of them. Figure 6 rifles with ammo and accessories per horse. After you’ve gotten the horses, you can negotiate for the 6 sections in the same type of trade. It could take most of what you brought back from New Hampshire.”

When everything was unloaded, sorted and counted there were ~3,600 HK416s, ~1,200 HK417s, 5,000 HK 9mm and .45acp pistols, ~2,400 grenade launchers and every rifle or carbine had a silencer. Magazines numbered ~54,000 between the H & K 5.56 and M16 magazines, standard 30 round magazines. The H & K magazines worked better. There were ~18,000 H & K 20 round magazines but none of the drums. There were ~86,500 HE and HEDP grenades in total, ~ 36 per grenade launcher. Everyone had at least 500 rounds of either 9mm or .45acp ammo.

Someone, not from the ranch, had collected every fixed blade knife in the Phoenix and Tucson areas and probably from other locations. It was pointed out to me that the HK416 and HK417s had bayonet lugs like the G-36 did and with minor modifications, the FX-05 bayonets could probably adapted to the two rifles, providing we could get the bayonets from México.

A bayonet might be useful in CQC/CQB/CQF (Close Quarter Combat/Battle/Fighting), but didn’t do a person much good at long range. We only had them on our Mossberg shotguns, a CQC weapon.

Although there is considerable overlap, close quarters combat is not synonymous with urban warfare, now sometimes known by the military acronyms MOUT (military operations in urban terrain), FIBUA (fighting in built-up areas) or OBUA (Operations in Built Up Areas) in the West. Urban warfare is a much larger field, including logistics and the role of crew-served weapons like heavy machine guns, mortars, and mounted grenade launchers, as well as artillery, armor, and air support. In close quarters combat, the emphasis is on small infantry units using light, compact weapons that one person can carry

and use easily in tight spaces, such as carbines, submachine guns, shotguns, pistols, knives, and bayonets. As such, close quarters combat is a tactical concept that forms a part of the strategic concept of urban warfare, but not every instance of close quarters combat is necessarily urban warfare – for example, a jungle is potentially a stage for close quarters combat.

Which explained why, in Vietnam, the US Military adopted the M-16 and CAR-15 and relegated the M14 to a backup, longer range role. The M14 was filling the same role at the end of Enduring Freedom and on naval vessels and Coast Guard vessels. There are 2 problems with the M16, no gas piston and NATO SS-109 (M855); they fixed the latter with M855A1. They didn't fix the former enmass. SOCOM got HK416s. Now if they had talked H & K into a 22 inch barrel for the HK417 with 1:10 rifling, and issued 3 HK416s per HK417, everything would have been Jim Dandy.

If at all possible, CQC should be avoided in favor of Urban Warfare. In a situation like the one we were facing, where the numbers favored the Mexican Army, the objective was to avoid direct physical contact, except perhaps when a sentry need to be taken out with a knife and no alternative existed. Our 600, 1,200, 4,000 and 8,000 grit DMT diamond stones saw a lot of use when people came to pick up their weapons.

Sorry, 2 thoughts fighting for attention and slightly related so I mixed them. Did we have enough rifles and carbines for the number of people we needed to supply? Almost is the most accurate answer. But, once they used those weapons, they could fill in the holes with the FX-05s. We did have ammo for WW 20 or was it 25? I'm sure that I said 25 before. No matter, it should enough for the Mexican Army and any other branch of service.

Maybe real life wasn't like the western movies they used to make because the Indians were civilized. Wait, that was before the war. With the invasion by Mexico, they'd be back to fighting for their lives. If just one Mexican was killed by an Indian and identified, all the Indians would become targets, if they weren't already.

All these years we'd had problems with Mexicans trying, and usually accomplishing, to cross the border illegally suggesting that Mexico wasn't a nice place to live. You don't suppose that's why the Mexican Army came to our country do you? Illegal immigration to get away from the bad conditions in Mexico; Nah... Reconquista to reform the Nation of Aztlan was much more likely. It has been the subject of much PAW fiction starting with Fleataxi with his *Aztlan Invasion*. He's been gone since April 12, 2011.

I copied a map from Wikipedia to my computer that showed the original Mexican borders. Somewhere between $\frac{1}{4}$ and $\frac{1}{2}$ of old Mexico was on our side of the border. Call it $\frac{3}{8}$ to average the two, but it's closer to $\frac{1}{2}$. How many of the residents of the ranch were not members of the Latino/Hispanic group or the Native American group? Not many, that's certain. Would they rely on their US Citizenship or their ethnic origins? The answer to that question is found in understanding people like Ira Hayes and the *Windtalkers*, ergo, various tribe members of several Indian Nations use their native language to talk in code indecipherable by the Japanese.

The Japanese figured out that one of Sergeants on the Bataan Death March was Navajo and spoke the language... Didn't do them any good. He spoke Navajo but the words used by the Windtalkers were a code within a code where the Navajo word for buzzard might refer to something like a bomber. Worse, the Japanese didn't have Colossus, the name of the computer in Bletchley Park used to decipher the Enigma code.

The people receiving the firearms and ammo didn't need much training. They set off in small groups' intent on kicking butt. While the more common expression is kicking butts and taking names, they had little interest on who they killed; so long as the person was in a Mexican uniform. The additional arms issued only served to increase the body count.

The Dome IV – Chapter 41

John went to the Gila River Indian Community and made them the same offer. After bouncing it around for a while, they agreed to join and ask where to get what they needed. John explained about the castle on I-10 west of Eloy and told them to bring anything they need besides firearms and ammo. He suggested they find a diesel powered bus or 2 that ran and 'Come on Down'. The next day, he headed for the Salt River Pima-Maricopa Community or what was left of it. He had little luck finding any survivors and those he did find weren't interested.

We had weapons and ammo leftover after equipping all the 'warriors' and their family members that wanted 'something'. John would give us occasional updates, mostly body counts. The Mexican Army continued to spread and we'd sometimes see small convoys on I-10. Then, one of those convoys got off I-10 and swept through Eloy. We didn't hear any gunshots, but they were 3 plus miles away. It became abundantly apparent that they'd seen our 'castle' from I-10 when the group turned south from Eloy and headed our way.

"Red Alert. Do not respond to the Mexican forces in any way, shape, form or manner unless you get the word to open fire. If the command is given, take them out as expeditiously as possible. No quarter."

"One of your relatives fight at the Alamo, Ramón?"

"Nope, they lived in this general area as far back as anyone can remember. No Quarter is the English translation of El Degüello which Santa Anna ordered played at The Alamo in addition to hanging a red flag signifying the no quarter would be given. You did see those OKC-3S bayonets we picked up on a detour through Franklinville, NY, didn't you?"

"Do you know anyway to mount those bayonets on the HK416s and HK417s?"

"They should just slip on."

"Really?"

"We brought back all the gun parts we could find. Oh, oh OPEN FIRE."

The strange part was they'd detoured around Franklinville on their way up and one of the people mentioned Ontario Knives so they'd stopped there on the way back and hit the mother lode. Hang on; I've got to shoot a Mexican soldier. Got him, now where was I? Oh, the bayonets... The bayonets were part OKCs Tactical line and they cleaned out that group and a couple of others. I'd have to get with John and tell him we had bayonets after all.

It seems the misunderstanding arose over the shortest barrel that didn't extend enough for the ring on the bayonet to slip over. It wasn't a problem because the HK416s and HK417s had the long barrels with the bayonet lug as the bottom portion of the front sight. And since I'm on bayonets, I wonder if TOM ever got a bayonet lug on his M1A Loaded and ever figured out how to fit the 16" bayonet from the Springfield rifle. Or, maybe his kid from Arkansas did.

TOM said that his kid claimed that if you were close enough to use a bayonet, you were too close. The kid may have been right, when he went to Iraq; they were issued M4s with stubby 14 inch barrels. Hell, they're almost too short to be called a carbine and were more of a PDW. It gets confusing.

The HK416 models chambered for 5.56x45mm NATO available to the military and law enforcement market are:

D10RS: sub-compact with a 264 mm (10.4 in) barrel
D14.5RS: carbine rifle 368 mm (14.5 in) barrel
D16.5RS: rifle with 419 mm (16.5 in) barrel
D20RS: full-sized rifle 505 mm (19.9 in) barrel

As of 2013, the HK416 A5 models chambered for 5.56x45mm NATO available to the military and law enforcement market are:

HK416 A5 – 11": sub-compact with a 279 mm (11.0 in) barrel
HK416 A5 – 14.5": carbine rifle 368 mm (14.5 in) barrel
HK416 A5 – 16.5": rifle with 419 mm (16.5 in) barrel
HK416 A5 – 20": full-sized rifle 505 mm (19.9 in) barrel

The HK416's barrel is cold hammer-forged with a 20,000-round service life and features a 6 grooves 178 mm (1 in 7 inch) right hand twist.

The HK417 is currently available with three different barrel lengths (all in 7.62x51mm NATO):

HK417 12" 'Assaulter' Model – 12" standard barrel
HK417 16" 'Recce' or 'Recon' Model – 16" standard and accurized barrels
HK417 20" 'Sniper' Model – 20" accurized barrel

Accurized barrels provide 1 MOA accuracy (with match grade ammunition). A barrel can be changed in under two minutes with simple tools. All HK417 barrels are cold hammer forged and chrome-lined and use a conventional lands and grooves bore profile with a 279.4 mm (1 in 11 in) twist rate. They are designed to function reliably with bullet weights ranging from less than 9.3 to 11.34 g (147 to 175 grains) and are threaded for flash hider, muzzle compensator, and sound suppressor attachment.

Of course the 'ideal' twist rate for 175 grain bullets is 1:10, but don't be confused by the facts. It has to do with bullet weight and length. If I may quote Chuck Hawks.

The rate of twist is expressed as one turn in so many inches (i.e. 1 in 10" or 1:10). The twist in a rifle barrel is designed to stabilize the range of bullets normally used in that particular caliber. It takes less twist to stabilize a given bullet at high velocity than at low velocity. At the same velocity in the same caliber, longer (pointed) bullets require faster twist rates than shorter (round nose) bullets of the same weight and heavier bullets require a faster twist than lighter bullets of the same shape. It is undesirable to spin a bullet a great deal faster than necessary, as this can degrade accuracy. A fast twist increases pressure and also the strain on the bullet jacket.

Fortunately, the rate of twist chosen by the rifle maker is usually appropriate for the intended cartridge. Anyone ordering a new barrel for a hunting rifle will generally do well to specify the standard twist as supplied by the major rifle manufacturers for that caliber. Where there are two twist rates in common use, for example 1:10 and 1:12 for the .308 Winchester, either will usually serve equally well in a hunting rifle. Many other factors are more important to accuracy and performance than twist rate.

Once in a great while, though, a manufacturer makes a mistake. One such case involved the .244 Remington. When first introduced, barrels for this caliber were made with a 1-in-12 twist, because Remington anticipated that their new cartridge would be used primarily for varmint shooting. The 1 in 12 inch twist is ideal for best accuracy with varmint weight bullets (70-85 grains) in a high velocity .24 (6mm) caliber rifle. The heaviest spitzer bullet that a .244 with a 1 in 12 inch twist barrel could stabilize was 90 grains. The customers, however, also wanted to use their new .24 caliber rifles for hunting medium size big game, with 100 grain bullets. Needless to say, customers ignored the new .244 Rem. Remington soon saw the error of their ways and changed the rifling of their .244 barrels to 1 turn in 9 inches, but the damage was done. Sales remained so slow that eventually Remington had to discontinue the .244. The following year they re-introduced the exact same cartridge as the 6mm Rem. and produced all 6mm rifle barrels with 1 in 9 inch twist barrels, which can stabilize all .24/6mm bullets.

Here is a formula for calculating twist rate:

$$\text{TwistRate} = \frac{3.5 * \text{Velocity}^{0.5} * \text{Diameter}^2}{\text{Length}}$$

(Remember that is a quote from Mr. Chuck Hawks. I'm not trying to claim it's not correct, I'm trying to give credit where credit is due.)

If you read further down the page, he said the correct twist rate for .308 was 1:12. Standard M14 rifling has right-hand twist of 1:12 inches with 4 grooves. Keep in mind that the ammo was 147 grain 7.62 NATO. The M1As manufactured by Springfield Armory, Inc. were either 1:11 or 1:10 with the faster twist rates being used on the heavy

weight match grade barrels used by the Super Match, M21 and now discontinued M25. It depends on the bullet weight and length, read the formula. The Loaded M1A shot the 147 grain South African surplus just fine, 0.5 MOA at 500 meters on one rifle I knew about.

Back to the matter at hand, the dead Mexican soldiers. We'd take their weapons and ammo without doubt. Crew served weapons would either be added to our collection or hidden. The bodies could joint Kraut et al. The idea of creating a Boot Hill was discussed and dropped. Which left us with the vehicles; we could change the plates on the pickups and SUVs. We already had Hummers, no problem there; paint US military ID numbers on the vehicles.

'Cousins' who wanted additional rifles or carbines would be offered their choice between the German arms or the FX-05s. John nixed that idea as soon as I brought it up, claiming that any Indian walking around with a FX-05 was wearing a sign on their back that said 'Shoot Me'. He said they'd be willing to trade the FX-05s 2 to 1 for a HK416 or 3 to 1 for an HK417, plus an extra rifle for the grenade launcher.

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A bit of artistic license is taken beginning with the following chapter about who won the Presidential Election in 2016. I don't know if he's going to run and if he does whether he stands a chance of getting elected. But, his name has been mentioned.

The Dome IV – Chapter 42

“Who is in charge here?”

“Who wants to know?”

“Before the war, they called me Mr. President.”

“You’re dead.”

“Sez who?”

“I do, Calvin Burgess. We went to Fort Carson looking for salvage and afterwards checked the Mountain. Both ends of the tunnel were blasted shut.”

“That’s right, the primary entrance was blasted shut and after we exited the other end, we blasted it shut.”

“When did you come out?”

“Oh, that wasn’t all that long after the Springs took the warheads. China used those ER warheads, you know.”

“We speculated as much. Where have you been, the war occurred on 22Jun20?”

“We must have hit the 10th SFG before you did. We got some HEMTT A4s, M978 tankers, pulling trailers with CONEXs and some M985 cargo trucks pulling more trailers with CONEXs. On top of that we had 8 HETS with M1070A1 tractors and M1000 trailers and recovered 4 M1A3 Abrams and 4 M2A4 Bradley IFVs. Then we took off cross country. Say we gonna stand here jawing, or will you let us in?”

“What do I call you?”

“Well, my name is John Ellis Bush, but how about Jeb?”

“How’s George?”

“Don’t rightly know. Mom and Dad are gone of course. George was in Paraguay, Neil is MIA, Marvin is MIA and Dorothy was probably killed in the attack on Washington DC.”

So, here we are in 2035 and the former President, call me Jeb, is at our doorstep seeking admittance.

“Ramón, pull back the Cat, pull the posts, open the gate and lower the drawbridge.”

“In that order?”

“I don’t care, just get it done and put us on Yellow Alert until everyone is inside and we’re buttoned up.”

“Do you trust him?”

“He was going to be reelected in 2020.”

“But he’s not President anymore.”

“I know that, but common courtesy demands that I invite him in.”

“What about the others?”

“Jeb, who are the others?”

“United States Marines, my escort. Got five of Battalions of Army soldiers on the way down from Phoenix to fight the Méxican Army.”

“How big is that Ramón?”

“About a Brigade; they run from 3 to 6 Battalions plus support elements.”

“You can all come in, stand by while we unlock.”

I lowered the drawbridge while someone else pulled back the dozer and others pulled the pipes and opened the gate.

“From the looks of it, you don’t welcome company.”

“We don’t welcome uninvited company, no. Got a bunch of them buried in the field across the road. Some Méxican soldiers, some East German Stasi and some wannabe bad asses. Ginger and I live in the Dome. This parcel of land is 6 sections including the canal that totally surrounds the berm. We grow Tilapia in the pond and canal.”

“Hi, I’m Ginger.”

“I’m Jeb and I wish I was a lot younger.”

“Thank you. How old are you?”

“Seventy-nine. I thought I had the world by the butt when I was Governor of Florida; and, maybe I did. Times change and we undid most of the harm that my predecessor did to the country. Russia and China were lying so we lied too. We have several Ohio class boats with missiles still in the tubes in various ports around the nation. We cleaned out the gold coins at the West Point Mint and have been paying surviving mili-

tary using the gold. We also cleaned out the inventories of any coin dealer we could find in the cities that took hits. We tried to clean out H&K but somebody beat us to it. No matter, it seems there were several other factories producing military firearms.

“We’re using a little bit of everything we can find that is select fire. There’s FN and Knight’s Armaments, Remington and several other manufacturers that assemble select fire weapons for Law Enforcement and the military. We got a lot of standard, loaded standard and national match 7.62 rifles in Illinois. Someone had cleaned out the parkerized Super Match actions/barrels but left the Super Match rifles with stainless steel barrels so we have a few sniper rifles.”

“We have quite the collection of H&K rifles, grenade launchers, etc. It was us who took the parkerized Super Match actions/barrels. We had them glass bedded in McMillan M3A ladder type adjustable stocks. We also cleaned out McMillan’s finished rifles.”

“Well, the place was abandoned so I don’t see where anyone has room to complain. We have a few armorers assembling the remaining components into useable firearms at McMillan and at Barrett. We had some but, not really enough. What do you grow on your land Cal?”

“Mostly food, Jeb. Beans, Rice, Wheat, Corn, Oats, Barley and some alfalfa for the livestock.”

“You got enough to provision a Brigade?”

“I hate to say yes and get caught between a rock and hard spot but if we produce more this year as we did last year, probably.”

“We’re talking about food for almost 3,000 people.”

“I figured that many, Jeb. It would force us to live on our reserves, however, so it would be in your best interests to defeat México as fast as possible.”

“I’m tempted to nuke México City.”

“Why haven’t you?”

“Only the President and the Secretary of Defense have the combined authority to authorize the strike. I’m not President so the Secretary of Defense isn’t the Secretary of Defense. Besides, it has to go through the Pentagon and they wiped it out.”

“What about the Joint Chiefs?”

“They were in the Mountain with me and my cabinet.”

“Who has the football?”

“A military attaché.”

“Could you contact those Ohio class subs from the Mountain?”

“Well of course. But the Mountain tunnel is closed at both ends.”

“So, we open one and you, the SECDEF and the Joint Chiefs issue the orders to the sub nearest to México City.”

That would take a lot of explosives.”

“We have a lot of explosives and there are probably more at the 10th SFG at Fort Carson. All we need are the Marines to help and guard us while we get you in. I’ll talk to John and see if any of his ‘cousins’ are explosives experts.”

“Who is John and who are his cousins?”

“John is a Pima Indian and his ‘cousins’ are the surviving members of the Pima tribe.”

“Ira Hayes’ tribe?”

“Yep.”

“They made several movies about the guy, but I liked *The Outsider* the best.”

“I hope you will join us for dinner, Jeb. I suspect that Ginger pulled the food from the freezer and I can assure that it’s better than tray packs or MREs. We have one menu specifically for special occasions. Your Marines should enjoy what the other wives’ come up with in the Community Center.”

“How did you manage to do all this?”

“My first wife was killed in a holdup of a Circle K and murder is double indemnity. I also inherited half of a Ready Mix operation in Phoenix plus my father’s class 3 firearms business when Dad died of pancreatic cancer. Mom remarried and my new stepfather wanted clear title to entire Ready Mix operation, so I sold it to him.

“The 3 sections were also part of the inheritance and early on I arranged for the Dome. The Dome has a basement providing space for a shelter. Shortly after the Dome was completed I met Ginger. I was a widower and she was a divorcée. We hit it off and got married. We have 3 children, a son and 2 daughters. All three of the women are pregnant with their first child.

“At Ginger’s suggestion we got into raising alfalfa. We were getting 12 cuttings a year and sold most of it alfalfa pellet producers. It generally runs 5 tons per acre at \$100 a

ton, producing a base income of \$640,000 per month gross. Eventually we purchased 3 more sections from the BLM and increased the alfalfa acreage to 4 sections or 2,560 acres and doubling the monthly income to \$1,280,000, an annual total of \$15,360,000. We received small amounts from the sale of Black Angus cattle and York hogs.

"I've always been a prepper of sorts and after we got married and kept adding hired hands, we started to accumulate long term supplies of most things we use, especially food products. I also held a class 3 license from the ATF and many of the purchases were sold to a Trust owned by my father and later owned by Ginger and me."

"Just how much did your ranch generate in overall income before the war?"

"Just shy of \$16 million a year gross."

"Paid a lot of taxes, huh?"

"Not a penny more than we had to; damn Democrats always had their hand out, wanting more. Believe you me, we expensed everything we could and capitalized and depreciated what we couldn't expense. We pulled that banjo string about as tight as we could. Only thing we didn't spend a lot of money on was vehicles. Good thing too, ours still ran after the war, not that we didn't have plenty of parts in case they didn't.

"The firearms are all assets of the Farm Corporation except for those that were owned by the Trust Corporation. We even added the firearms we 'collected' to the Farm Corporation asset base, under guise of 'finders-keepers'."

"What did you invest all that money in?"

"Gold and silver Eagles. At the moment we're valuing gold at \$3,000 an ounce and silver at \$60 an ounce. We have 3 vaults nearly filled with gold and silver coins. Well, not all of the silver is Eagles; we have a fair amount of the so called 'junk silver'. We figure that \$1,000 face value is 715 ounces at revalued face value of \$42,900. There are 10,000 dimes in \$1,000 face value and it makes a dime worth about \$4.29 and a quarter worth about \$10.73. Don't have many halves, but what do have are worth about \$21.45."

"Aside from the firearms you already mentioned, what do you have?"

"We'd better not go there Jeb. More than you might think and leave it at that. We can handle airplanes and tanks, up to a point. If we had more reloads, we could handle more."

"What do you need?"

"Stingers and TOWS."

“What do they go on?”

“LAV25s. The hummers are either equipped with M240Bs, M2A1s or Mk 19s. The M1117s have all three.”

“Where did you get those?”

“Found them lying around; abandoned property, free for the taking.”

“Why don’t I believe that?”

“Darned if I know, but it would be up to you to prove otherwise. Until your Brigade gets here, it’s just you and the Marines. Fortunately, Marines are familiar with the LAV25A1s, LAV25-AT and the LAV25AD. If they wanted to crew those for us, we probably wouldn’t have any objection. The rule is, if you break it, you fix it.”

“Speaking of the Marines, where are they?”

“Probably in the Community Center chowing down.”

“Cal, time to heat the grill.”

“Ok Ginger. How do you like your steak Jeb? I specialize in Medium.”

“Medium rare?”

“Ok, I cut one minute off both sides. Never cooked one medium rare before.”

“What do minutes have to do with it?”

“I grill the steaks 7 minutes on each side and let them rest 5 minutes and get a perfect medium. I’m guessing 6 minutes a side for medium rare and 5 minutes a side for rare.”

“Don’t you have a meat thermometer?”

“Of course we do. Don’t use it on steaks because it lets the blood out.”

“What are my Marines eating?”

“Best guess would be Mexican. Most of the good cooks are wives of the Vaqueros. Ginger can do very good Mexican, even though she’s from Missouri. Speaking of Vaqueros reminds me that I didn’t mention our firearms that can use Pyrodex or black powder in a pinch. We have a huge number of pre-2006 Ruger Vaquero revolvers and all the new Winchester 1886s in .45-70 and 1892s in .45 Colt we could lay our hands on. Ruger states that the ‘New Model Vaquero’ will handle +P and +P+ ammunition without any

issues, but warns users not to shoot reloads in any of their guns as it will void the warranty; but that could just be advertising.”

“I don’t know, Cal, they’d be open to litigation for that claim if one of their revolvers blew up due to +P or +P+ being fired in them.”

“I think they’d just claim that you were using hand loads. Since hand loads are used in recycled brass, nobody could prove either way and the burden of proof would be on the Plaintiff.”

“You went to Law School?”

“No, but I read Wikipedia a lot.”

Ginger was setting out the Caesar salads, the prawn cocktails and warmed buns. She checked the potatoes and they were done so she reduced the heat to minimum and added 3 plates.

“Did you go to Law School Jeb?”

“No, Latin American Studies.”

“Tell me, did we have any clue about what the Russians and Chinese were up to?”

“Are you familiar with the expression, *it’s a matter of when, not if?*”

“That’s mantra of survivalists and preppers.”

“All of our Ohio class submarines were at sea with replenishment ships within 24 hours sailing time. And, as I said before, they were carrying a full load of Trident IIs.”

“The steaks are ready, let’s let them set and dig in with salads and prawns. I thought that to comply with New START, our subs had to be downloaded.”

“They selected 2 SSBNs and we downloaded to conform to the agreement. As soon as they left, they were reloaded to a full complement of missiles and 8 warheads.”

“We thought so. I thought that part of the agreement with the Russian was the 2 of the subs would be in overhaul.”

“The 2 we scheduled needed the least amount of work and a month later they were ostensibly sent on sea trials to test the upgrades.”

Does sneaky son-of-a-gun fit? I think so and that makes him smarter than the average guy. No, we didn’t donate to his campaign! We bought more lariats that month, in Tucson.

Tango-Sierra-Hotel-Hotel-Tango-Foxtrot. Status: Foxtrot-Uniform-Bravo-Alpha-Romeo.

Sorry, just practicing my NATO Phonetic Alphabet. Alpha can also be spelled Alfa. It reminds me of: Crew ejects safely after US F-15 crashes in Mideast on training mission. It seems to me it would have smarter to eject before the plane crashed...

We've got ourselves an interesting situation. First off, the Méxicans have invaded the US and some say it is the Reconquista. Second off, the dead President isn't dead. Third off, we're selling rifles and munitions to the Indians, Pima to be specific. Finally, we're discussing the possibility of going back to the Springs, blow our way into Cheyenne Mountain and launching a nuclear strike against México City. Oh, some of our Ohio class still have missiles with 8 W-76 warheads each. They're 100kT, airburst or contact, Manufactured 6/78 - 7/87, active service, ~3000 produced, Trident I and Trident II Mk-4 RV TN warhead, missiles can carry 8-14 RVs, developed by LANL, part of the US "enduring stockpile". (LANL Los Alamos National Laboratory)

The Dome IV – Chapter 43

Not quite a 'Méxican Standoff', but close enough to count. What's a fella going to do when faced with two choices, neither of them very good? Sometimes, a fella just has to choose the choice most likely to end the standoff. It's just a shame that those W-76s weren't ER devices.

So, off we went again for the 10th SFG at Fort Carson. The Marines, after a little instruction, took to those LAV-25s like old hands. Ramón assigned his best people to man the M1117s; a crew of 3 and one of Hank's people filling the 4th seat. I was the 'Leader' so naturally, I led. It was another Convoy which included the Hummers, a fuel tanker, a few trailers with food and extra ammo.

We followed the same route we used on the last trip and it seemed like it took almost no time to get to the Fort. Some of the officers that came along seemed to know where everything was stored at Fort Carson and it didn't take long to get a bunker of RDX or something like that. Two of the Marine Sergeants, a Gunny and a Staff, seemed to know their way around explosives and they blasted our way in using the front entrance and a fair amount the explosives. Got a front-end loader to haul the rock and pile it. Two days after they started, we were inside.

"Y'all be careful, hear. That lining of the tunnel is in serious disrepair where we reopened it."

That was quite the combination from the Gunny; one minute he sounds like a hillbilly and the next minute like a graduate of Harvard Law.

"Gunny, you and the Staff Sergeant standby outside, in case it collapses and you have to dig us out again."

"Yes sir, Mr. President. Sorry sir, Jeb."

"Where's the submarine you're planning on using Jeb."

"Outlying Field, San Nicholas Island. We managed to get a couple of barges of stores out to those folks and they've probably been sitting around drinking stale beer, assuming they have any left."

"Have you figured out where you're going to target the warheads?"

"We've been discussing that; México City, for certain. We're also thinking of directing some of them about 100 miles south of the border, but that's up in the air for the moment. It could create a new 'nuclear border' and we might be able to drive the México Army back across the actual border and into the fallout areas."

"If the left one don't get you, the right one will?"

“Cassius Clay.”

“I think he prefers Muhammad Ali.”

“Yeah, whatever.”

Once inside, they got things powered up and eventually working. Now it was time to see if the Navy would follow the orders of the former President, SECDEF and Joint Chiefs. Step one was to establish contact with the sub at San Nick. They opened the football and gave the codes to the Joint Chiefs. When the Joint Chiefs concurred, the Chairman passed the authorization codes to the sub.

Since the warheads had to have their targets reprogrammed, it took a while. The sub, meanwhile, had departed San Nick and before submerging, acknowledged the new targets and asked for reconfirmation of their orders because targets were in México.

“This is the President and the SECDEF is here with me in the Mountain. I confirm the targets. Do you wish to speak to the SECDEF?”

“Negative. We’re submerging and will launch in a few minutes.”

“Could someone bring the ranch up on 40 meters?”

“Sure, but why?”

“I want to tell them to Duck and Cover.”

“This Ramon, what’s up?”

“The sub is about to launch on the Méxicans; Duck and Cover.”

“Roger, everyone into the shelters. I’ll put the word out. Do we have time to shelter the livestock?”

“I wouldn’t count on it.”

“Cal, Ginger. What’s going on?”

“The US is going to nuke México and end this stupid little war.”

“Haven’t we had enough deaths?”

“Tell it to the Méxicans. Sorry, dear, I’ve got to go.”

The D-5 missile has a 90–120 meter CEP. With a 100kT warhead, close counts. Apparently several D-5 missiles were launched and took out most of the counter-value targets and more warheads created a nuclear curtain south of the border. It was a little closer than I liked, ~75 miles south of the border. Now, if that Brigade could push the Méxicans back across the border, we could go about rebuilding the country. There is more to surviving than just living. Those that can, do.

By the time we'd returned from Colorado Springs, the Brigade Combat Team (BCT) had the Méxican Army on the run from El Paso to San Diego. The BCT didn't destroy any bridges until the Méxican had crossed; and then they brought in the 155mm stuff and blew them to splinters. It wasn't described as a rout although that's what it amounted to.

"It's going to be a while until we can clean up the country and hold elections, Cal. Do you have any suggestions on what we should do now?"

"Jeb, you were the last elected President and until we hold those elections, I think you're the leader of this great land. Do what Leaders do, and lead. There's probably no one person in the country that has the oversight you do. You were Governor of Florida for 8 years and served 3½ years as President. Did you nuke your wife's home town of León?"

"Well, Columba wasn't too happy with the attack but I pointed out I spared León despite it having a large enough population to be considered a counter-value target."

◦

Columba Bush has been active in promoting the arts. In 1999 she worked with Arts for a Complete Education/Florida Alliance for Arts Education (ACE/FAAE) to develop *Arts for Life!*, a program devoted to increasing the importance of art in the education system. She has also used her experience with her family's substance abuse issues to aid treatment and prevention programs such as the National Institute on Alcohol Abuse and Alcoholism (NIAAA). She has served as co-chair of the NIAAA initiative, Leadership to Keep Children Alcohol Free, and has served on the board of the Center on Addiction and Substance Abuse at Columbia University.

Mrs. Bush and her husband are both active Catholics. She is a member of Regnum Christi. In 2007 they attended the Regnum Christi Family Convention in Atlanta.

She appeared in a Spanish language campaign commercial for her father-in-law, George H. W. Bush, in 1988, but generally tends to be uninvolved in politics

◦

"Does that mean you will or will not be sleeping on the couch?"

"We'll see. So you think I should continue my role as Leader?"

“Until we can have elections, yes. Do you think we can get far enough into the process of recovering the country?”

“It’s going to be a huge job because they struck mostly counter-value targets. That has pluses and minuses. As far as population control goes, we lost anywhere from 80 to 95 percent of our population from all causes; Yellowstone, the Comet and the war. We can’t rebuild most of the cities. I believe we should abandon them and start afresh. That would eliminate more than half the work it would take to rebuild the country.

“I noticed that most of your hired hands live in doublewide mobile homes. Back in 2014, I caught something on the news one day about investing in mobile homes or mobile home parks. I believe that we could build mobile homes and or mobile home parks a lot faster than regular construction. I also understand that there is something called a desert package that results in better construction and more insulation.”

“Most of our homes were built in Hemet, California. We only buy one model, the Fleetwood Beacon Hills series with the optional activity room. Bedroom 2 can be ordered as an optional study which reduces the full bath to a half bath. We actually have both. Our 3 children have triple-wides from another manufacturer. While the homes aren’t exactly built on an assembly line, current building practices just before the war began to take on those aspects.”

“Affordable?”

“Well... we might not be the people to ask. They are employee housing and accounted for as assets, and depreciated accordingly. But you know, it might not cost the country a dime to rebuild. Aren’t all the foreign gold deposits in the US stored in vaults in the Financial District in New York City?”

“I was briefed on the Federal Reserve Bank of New York when I took office. The best I can remember, considering my age is that:”

Gold custody is one of several financial services the Federal Reserve Bank of New York provides to central banks, governments and official international organizations on behalf of the Federal Reserve System.

The New York Fed’s gold vault is on the basement floor of its main office building in Manhattan. Built during the construction of the building in the early 1920s, the vault provides account holders with a secure location to store their monetary gold reserves.

None of the gold stored in the vault belongs to the New York Fed or the Federal Reserve System. The New York Fed acts as the guardian and custodian of the gold on behalf of account holders, which include the US government, foreign governments, other central banks, and official international organizations. No individuals or private sector entities are permitted to store gold in the vault.

Much of the gold in the vault arrived during and after World War II as many countries wanted to store their gold reserves in a safe location. Holdings in the gold vault continued to increase and peaked in 1973, shortly after the United States suspended convertibility of dollars into gold for foreign governments. At its peak, the vault contained over 12,000 tons of monetary gold. Since that time, gold deposit and withdrawal activity has slowed and the vault has experienced a gradual but steady decline in overall holdings. However, the vault today remains the world's largest known depository of monetary gold.

As of 2012, the vault housed approximately 530,000 gold bars, with a combined weight of approximately 6,700 tons. The vault is able to support this weight because it rests on the bedrock of Manhattan Island, 80 feet below street level and 50 feet below sea level.

Gold bars are transported by elevator from street level to the vault's basement location. Once inside the vault the bars become the responsibility of a control group consisting of three representatives: two members of the New York Fed gold vault staff and one member from the New York Fed internal audit staff. These three individuals must be present whenever gold is moved or a compartment is opened in the vault – even to change a light bulb. This helps ensure proper safekeeping and maximum security for the gold.

All bars brought into the vault for deposit are carefully weighed, and the refiner and fineness (purity) markings on the bars are inspected to ensure they agree with the depositor instructions and recorded in the New York Fed's records. This step is vital because the New York Fed returns the exact bars deposited by the account holder upon withdrawal—gold deposits are not considered fungible.

Following the verification process, the gold is moved to one of the vault's 122 compartments, where each compartment contains gold held by a single account holder (meaning that gold is not commingled between account holders). In rare cases, small deposits are placed on separately numbered spaces on shelves in a "library" compartment shared by several account holders. Each compartment is secured by a padlock, two combination locks and an auditor's seal. Compartments are numbered rather than named to maintain confidentiality of the account holders.

The New York Fed charges account holders a handling fee for gold transactions, including when gold enters or leaves the vault or ownership transfers (moves between compartments), but otherwise does not charge fees for gold storage.

While gold bars are mostly uniform, there are subtle differences that can signify, among other unique characteristics, when and where a bar was cast.

Before 1986, bars cast in the United States generally were rectangular bricks. Currently, however, bars cast in the United States conform to the long-standing international standard for most bars cast overseas, which are trapezoidal in shape. For bars cast in

the United States under the pre-1986 standard, a bar's shape can also indicate where it was cast. Bars from the Denver Assay Office have rounded sides; bars from the San Francisco Assay Office have rounded corners; and bars from the New York Assay Office have square edges. Markings on the bar also reveal information about its production. For example, a set of numbers on the bar often identifies its melt—the molten gold from which a bar is made—while another set indicates its fineness or purity. A stamped seal of a refiner often identifies where the gold was cast.

Surprisingly, gold bars are not 100 percent pure gold. If they were 100 percent pure, the bars would be too malleable to preserve their shape. This would render them difficult to store or move. Therefore, each bar contains a small amount of at least one other metal, such as copper, silver or platinum. Tinges of color can indicate the type of alloy, however modest, from which a particular bar is composed. For instance, traces of silver and platinum give the gold a whitish shade, copper is most often found in reddish bars, and iron produces a greenish hue.

The market value of a gold bar depends on its weight, purity level, and the prevailing market price for gold. Rather than market pricing which fluctuates daily, the New York Fed uses the United States official book value of \$42.2222 per troy ounce for gold holdings.

The vault is safeguarded by a comprehensive multilayered security system, highlighted by a 90-ton steel cylinder protecting the only entry into the vault. The nine-foot-tall cylinder is set within a 140-ton steel-and-concrete frame that, when closed, creates an airtight and watertight seal. Also, once closed, four steel rods are inserted into holes in the cylinder and time clocks are engaged, locking the vault until the next business day.

Security is further enhanced by the massive steel-reinforced concrete walls surrounding the vault and 24-hour monitoring of activity inside and outside the vault by security cameras, as well as the use of motion sensors when the vault is closed. Continuous supervision by the vault control group also ensures that proper security procedures are followed at all times. Additionally, the gold is protected by the New York Fed's robust building security system and the armed Federal Reserve police force.

“Jeb, being it's that far below the surface, it shouldn't even be radioactive. I'll tell you though; it will take every thermal lance and bottle of oxygen to burn through those 90 ton doors. The beauty of it is that everyone but the US population will be paying for the initial rebuilding. No one on the ranch has those skills or I'd offer to do it for 1% of the gold recovered.”

“One-tenth of 1%.”

“Ok, I don't like haggling ½ of 1% tax free, final offer.”

“Done, done and done.”

One-half of one percent of 6,700 tons of gold was 67,000 pounds of gold or ~61,067.71 troy ounces at \$3,000 per ounce. In total, \$183,203,130. It was worth whatever risk was involved. Maybe Ginger and I could retire early and let our three divide up the ranch. Or, just close the outer and inner doors to the Dome, lock the tunnel doors and play patty cake. Just thinking about that retirement was an incentive in and of itself.

“Ramón, we’re making another road trip. We need the ability to haul back 6,700 tons of concentrated weight. We’ll also need a double tanker rig filled with stabilized #2. I’m not sure how long it will take, so plan on food and water for 1 year. We need the 4 LAVs, 4 M1117s, and all the Hummers equipped however you have them set up. I think it might be a good idea to take 2 of those B-Train 53 foot rigs, too. We need a full complement of people with no empty seats.

“Now before we go, round up all the thermal lances and bottles of oxygen you can find along with some spare acetylene bottles and a full complement of oxygen-acetylene cutting tools. Ask around and see if anyone has any experience with a cutting torch or thermal lances. I would assume that if the person has experience with thermal lances, they have experience with cutting torches.”

“Why?”

“Why what?”

“Why do we need this stuff?”

“Well, I made a deal with Jeb to recover all the foreign gold in the Federal Reserve Bank of New York for ½ of 1 percent of the gold, tax free. That would be 67,000 pounds of gold or ~61,000 troy ounces at \$3,000 per troy ounce. I’ll pay a bonus to everyone who helps in the amount of ½ of 1 percent of the gold I get, divided equally among you. You’ll be dividing up ~305 troy ounces.”

“Not good enough, Cal, 5 percent.”

“Two and one half percent divided among you, final offer. Going, going, go...”

“Ok, 2½ percent.” (Two and one half percent was only 1,527, troy ounces, rounded up, and when divided, wouldn’t really amount to much, \$4,580,078; leaving Ginger and me with \$178,623,052.) Added to the \$100+ million we already had, giving us a very nice retirement package.

“I found 2 people with experience using cutting torches and thermal lances. They’re going with me to round up the supplies.”

“Take a guard force with you, please.”

“Thanks, it makes me feel better. You can count on both Hank and me participating in this venture. We have trained staff we can delegate authority and responsibly to cover for us while we’re gone.”

“Did you check Phoenix for supplies?”

“Tomorrow and the day after. Hank is going through the vehicles with a fine tooth comb and they will be ready to go when we get back.”

“Ginger, do you have someone you can delegate responsibility and authority to for the gardening and canning?”

“Several women, why?”

“Ever been to New York City?”

“That the largest counter-value target in the county; surely it was nuked.”

“I don’t doubt that at all. It’s the home of the Federal Reserve Bank of New York. They store other countries gold there.”

“How much are we talking about?”

“Maybe 6,700 tons, ½ of 1% of the gold stored there, tax free. Maybe as much as \$178,623,052 worth, tax free.”

“Trust me Cal, if it gets put into circulation, the value of gold will sink faster than the Titanic.”

“And, if it isn’t put into circulation?”

“The price of gold will remain relatively stable.”

“Pack a bag with enough clothes for a year and enough food for a force of 36 for a year. We’ll need a tanktainer too or maybe 2.”

“What is a tanktainer?”

“A tanktainer is an intermodal container for the transport of liquids, gases and powders as bulk cargo. They hold over 10,000 gallons of liquid and in this case water. We have that HEMTT and trailer and each can haul a tanktainer. All we have to do is locate another HEMTT and trailer plus 4 tanktainers and we’ll be set.”

“Full selection of firearms and ordnance?”

“Might be a good idea.”

“I swear, Cal that you go looking for trouble.”

“And when I don’t, it finds me.”

“I’m not sure I want to go, the girls’ are close to their due dates.”

“There’s a small M*A*S*H unit attached to the BCT, with several doctors.”

“Then, against my better judgment, I’ll go with you.”

“I’ll find a travel trailer we can pull behind the Suburban. I’d better get the mechanic to check it out for a 7,000 mile trip. Select one rifle and pistol and we’ll carry the original Tac-50A1R2 and an M21.”

“Do you mind if I carry my Hi-Power in the Monarch rig, the Kimber in a fast draw rig and a PPK in an ankle holster?”

“Go for it; which knife?”

“My Gerber Mark I.”

“I’ll probably do the same. I’ll use my Mark I clone. I think it’s probably safe to leave the cowboy guns here.”

“Any reason for that?”

“New Yorkers’ seem to think the Wild West begins in eastern Ohio.”

Three days later, we were finally organized and ready to leave. Jeb gave us a Letter of Marque. According to the Oxford English Dictionary, 2nd ed. (Clarendon Press, 1989) (def. 1 of “marque” & def. 2a of “marque” defining “letter of marque”), the first recorded use of “letters of marque and reprisal” was in an English statute in 1354 during the reign of Edward III. The phrase referred to “a license granted by a sovereign to a subject, authorizing him to make reprisals on the subjects of a hostile state for injuries alleged to have been done to him by the enemy’s army.” James Bond called it a license to kill for the good of Her Majesty’s Government.

We generally followed the path Ramón followed on his earlier trip.

The Dome IV – Chapter 44

New York State had passed the SAFE Act. It was even more ludicrous than California gun laws. On the other hand, we didn't expect to run into any people when we arrived. Sometimes expectations and reality don't have much in common. Jeb had detached his Marine escort to drive the LAVs and provide protection for our salvage group. Uh-huh. They were probably there to make certain we only took our ½ of 1% of the gold bars stored in the Federal Reserve Bank of New York.

None of our discussions included limits on what we did with our free time. Because of that we were working 14-15 hour days. Eight hours on the clock breaking into the vault, and 7 hours on our own salvaging. It took the better part of 6 weeks to burn our way into the vault. The Gunny as keeping count and for every 200 ingots removed from the vault, we got the 201st ingot; our half of one percent.

Once we gained access, semi-tractor trailer rigs showed up to haul the government's share to the West Point Mint. We speculated that they'd found enough former employees to crank out the gold coins. Once the vault was empty and our share of the gold loaded on a B-Train, we were ready to leave New York and head to West Point. One-half of one percent of 6,700 tons was 37.5 tons and we spread it out in one of the B-Trains. After they weighed the ingots and determined the fineness, they traded 'exact weights' of pure gold into gold Eagles.

We didn't get the short end of the stick either; our salvage operations were extensive and we didn't have any empty space in the tractor-trailer rigs. With our end of the contract fulfilled, we headed back to Eloy. When we arrived home, our people were given their shares, even though it meant dipping into our silver coins to make their 2½% of our ½ of 1% come out even.

"I could sure use a shrimp cocktail, Caesar salad, baked potato and filet."

"Can you give me a couple days to rest up before we have our favorite meal?"

"Take as long as you need Ginger. I'm going to check with the security team and the Vaqueros. I'll try and find out if anything unusual occurred during our absence."

"I think maybe I'll lay down and take nap."

"Pleasant dreams."

"Anything unusual happen while we were going?"

"You could say that. Didn't Jeb say he was 79?"

"Yeah, come to think of it he did."

“And Dubya is 7 years older, right?”

“Something like that, he’s the oldest and would probably be about 86. Why?”

“Well the missing brothers, Neil and Marvin and their families went to Paraguay with him as did his sister Dorothy Bush Koch and her family. And you know Dubya had some heart problems in 2013. I think they had to put in a stent. Long story short, it got clogged up and needed a replacement. The medical care in Paraguay couldn’t handle the problem and the entire family flew back to the states and landed in Midland. He got the treatment he needed and he tracked Jeb down and the whole family showed up here. I’ve got to tell you, stent or no stent, he looked like death warmed over. Before they left with Jeb, he was looking better; his color was better and he had more energy.”

“Where did they go?”

“Fort Knox. It had something to do with the bullion depository. It wasn’t because of the tanks; they moved all of them to Fort Benning in about 2010. How was your trip?”

“Profitable. We earned 67,067 troy ounces gold and took the ingots to the West Point Mint and had them converted to Eagles in all 4 denominations. I heard some scuttlebutt that they intend to start minting silver Eagles in the same denominations. When we got back, we paid the bonus promised to those who went with us. None ended up millionaires although they’re pretty well set for retirement. Once I confirm it with the Boss, we’ll probably give everyone a raise because we’ve got a real job on our hands feeding that Brigade Combat Team.”

“The yields look to be significantly higher this year. I looked into planting Citrus because Phoenix was a major producer. I think we can do it by putting in a large orchard and trimming the grains we plant since the yields are rebounding nicely. We’re lucky to have large herds to provide organic fertilizer.”

There was a problem with the US minting silver Eagle coins in the fractional denominations like the gold Eagle coins. The 1 ounce would have a value of \$60, the ½ ounce \$30, the ¼ ounce \$15 and the 1/10 ounce \$6. Apparently the Bush family had a solution, revalue gold and silver, keeping the metal coins in lieu of the Federal Reserve System. The ratio between gold and silver was frozen to 50 ounces of silver equaled to 1 ounce of gold. Then, gold was devalued to \$1,000 per ounce. The made the 1 ounce worth \$20 and the fractionals \$10, \$5 and \$2.50. They also revalued the ¼ ounce gold coin to ¼ the value of the one ounce or \$250 instead of \$200. They were waiting to announce the changes until after the gold and silver coins were minted and ready for distribution.

With our original holdings of gold and silver we would still be very wealthy and that job in New York City made us beyond wealthy. We made a deal with the government being reformed to acquire 6 additional sections of land behind (west of) our original 6 sections.

We found the equipment used to dig the original canal and berm and did it ourselves with new hired help.

We had to build earthen dams to keep the original canal in place until we had the new canal dug, filled with well water and heated. With an absence of double wide homes, we built a second apartment building, double the size of the first building, complete with a shelter. The only difference with this shelter was that it was 2 levels and had the same footprint as the apartment building. We also managed to connect the drive-in freezer to the tunnel system.

Why were we still preparing? Habit? The snow line had receded and now the southern limit was approximately the southern border of Iowa. Andy and Sheree had capital, too, since he made the New York City trip. I think Ginger gave him more, but it wasn't worth fighting over.

We loaded up cattle, hogs, chickens, horses and oxen onto livestock trucks and grain and hay on the appropriate trailers and set off for Sullivan, Missouri. The mechanic was along, with parts, to rebuild any of Andy's farm equipment that needed work. Andy, Sheree, Bob and Cindy didn't return to the family farm. They found a new farm that was easier to work and consisted of 2 sections. We obviously stayed until the farm equipment was running, along with the equipment the new farm had. Andy kept 2 oxen to be added to ground meat and sent the remainder back with us.

We had only brought enough seed for 1 section so their first task would be growing the first batch of crops and reserving enough of the harvested crops to have double or triple the seed for coming years. They also had all the firearms, munitions and ordnance we supplied them. We did locate a tall utility pole and install a complete set of antennas, including beams mounted on a heavy duty rotor.

After a long goodbye, we headed home, anxious to see how everything was going. The canal was nearing completion and the berm was coming along very well. They had located Sodium Bentonite and the canal and outward face of the berm were coated about a week behind the canal digging and berm formation. They were even pouring those concrete merlons and setting them in place spaced to create the crenels. For us, it was *been there, done that, got the t-shirt*.

The new vault required to hold our 65,390 ounces of gold had been finished before we'd gone to Missouri and James and Dawn had moved into the Dome to keep it up while we were gone. I'm telling you, James and his sisters would make good members of the directors and Ginger and I agreed to add them on to replace Andy and Sheree. Dawn would eventually take over Ginger's role of managing the garden(s) and Jason and Manny would eventually take Hank and Ramón's places as head of farming/livestock and security. As family members, they'd be far better paid than Hank and Ramón.

"Cal, do you think we could get more Domes built?"

"I don't know if Monolithic survived the war. They're from Italy, Texas, south of Dallas-Fort Worth."

"Feel like another road trip?"

"Italy, Texas?"

"You've got it?"

"I'll talk to Ramón."

"Ramón, Ginger and I want to make another road trip."

"You just got back."

"I know, believe me. She has her mind made up."

"Where to this time?"

"Italy, Texas."

"Ok, I'll bite... who or what is in Italy, Texas?"

"Monolithic Domes."

"You already have a Dome."

"True, but we have 3 children and 12 sections of land."

"And to treat them equally, you need 2 more Domes?"

"There ya go."

"What do you need for Security?"

"We need One Hummer with a M2A1, 2 M1117s, a tanker of stabilized JP-8 and a B-Train. I'll drive the B-Train."

"The vehicles have already been brought back up to spec and I'm sure Hank will insist on the Mechanic making the trip."

"He can drive the tanker."

"Why don't you drive the tanker and let him drive the B-Train?"

"I'm, getting mellow in my old age; that's ok with me. We'll need provision for 4 months and plenty of well water. Last thing we need to do is get the trots from bad water."

"Ok, when?"

"She didn't say, so I'll assume ASAP. James will be in charge in our absence and the board will consist on James, Kathleen and Jennifer with you and Hank and their husbands as advisors. Hank and you should decide which husband will be your eventual replacements and begin their apprenticeships'."

"What about Dawn?"

"You mean *pretty as a midsummer's morn, they call her Dawn*? Ask James."

"On the off chance that guy from Palmdale shows up, what do we do with him?"

"Put him up in one of the apartments; I'd like to meet him. It's not likely he'll show up, he was born on 3/23/43 and would be 92 years old. *Just in case*, keep your eyes open for an old Dodge Ram with a Cummins 6BT engine or a converted Suburban with the same engine. He'd probably be pulling a U Haul and a small tanker no larger than 1,000 gallons. And, help him out; he hasn't had a driver's license since 2003."

"You can plan on leaving tomorrow after breakfast Cal, and everything will be as directed."

"Pack your bags Ginger. We're leaving in the morning. We'll be taking a tanker, a B-Train, a Hummer and 2 M1117s."

"Who will be in charge while we're gone?"

"James will be in charge with Kathleen and Jennifer on the board. Ramón and Hank will be their advisers along with Jason and Manny. I told Ramón that Hank and he would have to decide which of the 2 to train as their eventual replacements."

"I expect Jason will replace Ramón and Manny will replace Hank. How many Domes do we want 2 or 3?"

"Since Jeb hasn't announced the gold and silver revaluation, we might as well get 3."

"Same floor plans, etc."

"I think so. This time we'll be sure to add the 6 feet of earth cover."

"Blast doors?"

"I don't know, maybe Radius Engineering. We'll need 4 more 30,000 gallon propane tanks. I figure one for the apartment building and one for each Dome."

"They didn't tell you?"

"What?"

"They installed and filled a propane tank for the apartment building right off the bat. They also added 3 Containment Solution 40,000 tanks; 1 for gasoline and 2 for diesel. They're getting Jet Fuel A from Sky Harbor."

"We'll still need air purifiers and another order of those FM50 gas masks and filters."

"We should get that done before the metal revaluation."

"Tell James to take care of it while we're on the road."

"I wonder if Oregon Freeze Dry is back in business."

"The only way to find out would be to send the B-Trains up there and find out in person. We can do that after we get back. Phoenix was hit; did that include the Ready Mix?"

"The equipment and supplies are still there but nobody was around; I checked."

"Have Hank or Ramón get a portable batch plant plus the sand and aggregate and any additives you want include in the gunnite."

"I'll do that now before I forget."

"Did you get it done, Cal?"

"They're on it and will drive up tomorrow after we leave. What have you been up to?"

"First I put our weapons and ammo in the sleeper of the Peterbilt pulling the tanker. After that I selected the Mountain House products we'll be taking and a selection of home canned meat and vegetables. The Mountain House is okay when you don't have anything else, but home canned beats it seven times Sunday."

"I've never heard it put that way before although I have to agree."

It was about 1,050 miles to Italy, Texas counting detours. The only person at Monolithic was a security guard who got on a radio and it didn't take long for someone to show up. I explained that they had previously built our Dome near Eloy, Arizona and the guy remembered. He asked if there was anything wrong and told him our only problem was

we needed 3 more Domes identical to the first. I explained that we didn't have air purification systems 50kw propane fueled generators or blast doors.

Apparently he had sources and assured us it was no problem. He wanted to know about the shotcrete/gunnite and I told him I owned a Ready Mix firm when the first was constructed and would have a portable batch plant, aggregates and additives available when they got here.

Next was the discussion of price. I suggested that the price of gold was about ~\$3,000 an ounce. He claimed to have heard a rumor that gold would be cut to a fixed price of ~\$2,000 an ounce the following year and he'd only go \$2,000 an ounce. I hemmed and hawed and finally gave him the go ahead at \$2,000 an ounce; provided it was completed before the year was out. He gave us a frequency on 40 Meters to contact him about any changes.

We shopped around on the edges of Dallas-Fort Worth, filling one trailer and half of the second before heading home. We did find additional Kohler generators, parts and oil. When we arrived at the ranch, several changes had taken place. The canal and berm had been completed, the water in the second canal warmed and the dams removed. The concrete merlons were in place and more guard towers erected and equipped using the weapons from the Hummers. They would be used only for transportation in the future according to Ramón. They even pulled the .50 from our Hummer to complete one tower.

The second 6 section area had 4 additional towers and some had a M240B, M2A1 and Mk 19 but no Gatling gun. That gunsmith from Tucson had evaluated the feed system on those Gatling guns and came up with longer magazines. These fed without a hitch and had electric motors added. Gatling had added electric motors to one of the last versions of his gun. The motors were AC not DC but beside that work just fine. (By 1893, the Gatling was adapted to take the new .30 Army smokeless cartridge. The new M1893 guns featured six barrels, and were capable of a maximum (initial) rate of fire of 800–900 rounds per minute. Dr. Gatling later used examples of the M1893 powered by electric motor and belt to drive the crank. Tests demonstrated the electric Gatling could fire bursts of up to 1,500 rpm.)

The original problem with the Gatling gun had been the black powder used in the cartridges. With 3 truckloads of .45-70-405 Remington cartridges using smokeless powder, that was no longer a problem. In fact, the only problem was the range, thus the M240B. Perhaps the most noticeable differences after the war had been the loss of telephone service and the Internet.

We were obviously short on some things and long on others, like the Gatling guns. They had cleaned out every submarine and 820 amp hour AGM battery from Phoenix and Tucson. PV panels were still our primary source of electrical energy and with 16 banks of submarine batteries and 2 planned banks for each Dome, would continue to be for the foreseeable future.

The 3 new Domes were completed by December 12th and occupied by December 15th. Dawn and our daughters were expecting for a 2nd time, again with different due dates. On January 10th, the revaluation of gold and silver was announced. Having purchased the Dome with gold valued at \$2,000 an ounce, we were money ahead. We also kept the portable batch plant, cement, aggregates and additives.

John showed up one day for a cup of coffee and to chat.

“Cal, you’ve done alright for yourselves. Even with the announced devaluation of precious metals, Ginger and you certainly aren’t poor. Was it your intention to give each of you children 4 sections?”

“That’s our thinking at the moment, yes.”

“Every day when I get up and look around, I’m amazed with this place. It’s almost like living in Medieval times. Think about it, you have a moat, an impenetrable berm, merlons and crenels. The guard towers protect your outer barrier until you can move additional forces to any spot under attack. And, with the weapons you provided to the Pima’s, they have foregone any claim to your 12 sections.”

“I hadn’t heard that John.”

“That’s my main reason for being here, to inform you of the Council’s decision. It wasn’t just the firearms either. One of the primary considerations was the amount of food Ginger and you provided. This is harsh country and you not only managed to feed that Brigade Combat Team but a few thousand Pima. This document is a Land Grant from the Pima Nation for these 12 sections. It, coupled with your land deeds, give you unequivocal control of the 7,680 acres of land. It isn’t often that we see whites sympathetic to the Indian cause.”

“I’ve noticed that you use the term Indian rather than Native American. Is that significant?”

“That Native American stuff was mostly started by the Lakota up at Pine Ridge. Most of your Mexican employees are as much Native Americans as the tribes. Before the Spanish invasion of Mexico, they were Indians, like the Aztec (Mexico) and Maya. Besides, when you think about it, 6 of the 12 sections will be under indirect Indian control through Dawn, Jason and Manny. The Canadians have it more correct than the US when they refer to the First Nations.”

“As far as what we did, John, we were just doing what we thought was the right things to do.”

“It’s shame most of the white men and women of the United States don’t believe what Ginger and you do.”

“You know, Tired Old Man was critical of his friend Ron for his dislike of Indians.”

“Let me guess, Ron thought the Indians were lazy and unworthy of any respect.”

“I believe that was his general attitude.”

“It’s the most common. Of course in the latter part of the 20th Century and first part of the 21st Century, the flow of illegals from México to the US was much more than a stream and approached the size of a river. That’s why I mentioned the problems our people had trying to cross the border. With that nuclear border 75 miles of the legal border, our people will have free reign until the government gets its act together and reestablishes the Border Patrol. I think they should follow the example of the drug smugglers and put in a tunnel.”

“We have a lot of unused sections of pedestrian underpass that you’re welcome to.”

“That’s an interesting idea. I think I’ll bring it up to the Council. If we could start at the border, we could work our way north and south. We might even have it finished before they elect a new President.”

“That’s all well and good John, but you should take precautions that the drug cartels don’t take it over and use it to smuggle product into the country.”

“You can count on that. The northern end would be on the Tohono Reservation and the southern end probably in a business own by the Southern Pima people.”

The Dome IV – Chapter 45

The southern border of the Reservation supposedly went to the Mexican border. However, 60 feet out from the fence was US property. I presume that 60 feet out on the other side was Mexican property. We had on the order of 1,200 feet of Pedestrian Underpass. The Council decided to implement John's suggestion, with 400 feet north of the border and approximately 800 feet south of the border.

The project was implemented immediately, digging in both directions. At the northern end a block building was constructed which was long enough for the tunnel to rise to the inside of the building. A similar building was constructed south of the border and it was much larger than the Reservation building. It had a storeroom on the north end that the tunnel rose to, with the southern half of the building set up as a grocery store.

We could move food, via the tunnel, to the grocery store and the Southern Pima could bypass the border through the tunnel. Care was taken that people only entered or exited the Reservation building under the cover of darkness. On the southern end, people would enter the grocery on the pretext of shopping and move to the store room. They were accommodations like bathrooms and folding chairs in the storeroom while the Reservation building was empty.

I told John how Jerry usually camouflaged storage rooms in his stories and a collection of used furniture was added to the Reservation building. However, a useable path was left near one side of the pile of junk. In addition, tarps were draped over the furniture to 'protect it from dust'. The ruse worked well and when a Border Patrol officer asked to be shown the inside of the building, he saw nothing but the furniture covered by tarps. The area behind the furniture had a pile of gunny sacks to conceal the steel door that closed off the tunnel.

It wasn't as clever as TOM's gunroom behind the bar, but it passed the test. If a trained observer didn't see past the subterfuge, we were good to go. I wonder what Monolithic had to say when gold was devalued to \$1,000 per ounce rather than \$2,000 per ounce. He'd brought up the devaluation, not us. Sometimes playing dumb is your best bet. There's a name for this type of behavior... Situational Ethics. TOM claimed that Situational Ethics and an ulcer were his primary motivations for quitting law school.

About 10 days later, I was called to the gate. The drawbridge was down, the gates open and the dozer parked off to the side. There was an old Dodge Ram pickup that had to be about 40 years old with a man standing beside it that looked to be 100. He had that curved spine one sometimes sees in older people. He wasn't completely bald but was getting there. From my vantage point at the back of the drawbridge I could see 3 or 4 layers of bags under his eyes. He was using one of those HurryCanes they used to advertise on the TV. They were sold by Advanced Medical Solutions, Inc.

"I'm Calvin Burgess, can I help you?"

“Maybe... maybe not. I came this way from California looking for McMillan Brothers. I found the place of business, but someone cleaned it out. I was headed to Tucson to check if any gun dealers there carried McMillan Tac-50s.”

“Which version?”

“I think maybe that newer version, the A1R2. I also wanted a M3A ladder clamp style stock for an M1A.”

“What might your name be?”

“Gary Dale...”

“Gary, someone cleaned out McMillan several years back. It’s been a long time since the war; why didn’t you try sooner?”

“My wife had a bad heart and wasn’t up to traveling. Plus I had to find a vehicle that would run. Believe or not, I found that Ram at a Camacho used car lot. I had to get a new battery and add PRI-D to the fuel to get it running. After I had wheels, I scouted around for a M1A, 590A1, a M1911A1 and a Walther PPK. Couldn’t find a Loaded M1A and had to settle for a standard model. On the other hand, I did get a Browning Hi-Power Classic with those stupid 10 round magazines. First thing I did when I hit Glendale was to find a gun dealer and got some CMI 25 round magazines plus some 13 round Browning magazines.

“The Gun Galleria had plenty of PPK magazines and 8 round magazines for the M1911A1. I’m sorry, I have to sit down. I’ve got emphysema and chronic bronchitis. I also happen to be diabetic but I did manage to locate a lot drugs. They’re all expired now, but still seem to work.”

“Care to come in for coffee?”

“You still have coffee?”

“Quite a bit as a matter of fact. You wife didn’t come along?”

“I’m afraid not. Her stents got plugged again and she died last year.”

“You didn’t have anyone to help you?”

“Nope; the wife and I got into a big fight with our daughter and she and the grandkids moved out. I ended up doing most of the cooking. I got a break because we lived across the street from a Target store and had a new freezer delivered just before the war. It was a big sucker, 33 cubic feet. I stocked it with those loaves of frozen bread and buns.”

“Come in and take a seat and we’ll continue this after the coffee is made.”

“Starbucks?”

“No, Folgers.”

“Do you remember Hurricane Katrina?”

“Yes. Why?”

“Well, I warned everyone on a website I frequented that Folgers had a plant in New Orleans and they’d better stock up before Folgers raised their prices.”

And, as they used to show in cartoons, a light bulb came on.

“Ever heard of a writer that used the pen name of Tired Old Man?”

“Well of course. I never sold a lot of my CDs, you know. I guess I was a legend in my own mind. They hit Reno, you know, but Terral picked up Jerry 2 days earlier and they were in Winnemucca when the attack came. I only know that because he sent me a Skype message several days before the attack telling me that Terral and Becky were picking him up. They live in Winnemucca. I never used a GPS so when the satellites went down, it didn’t really concern me. Man do I miss the Internet and Wiki.”

“What did you use to keep the freezer cold?”

“I had a gasoline fueled 7kw PowerBoss with a Honda engine. Already had 7 gas cans, but every time our daughter was short of money she’d use a can to get her to her next paycheck. That’s why I had to get the Dodge. There was no way I could carry 5 gallons of gas a mile. I did get more Blitz cans from Lowe’s and I had a fair amount of PRI-G and PRI-D. We had plenty of garden hose and I found a DC powered pump that I used to pull gasoline and diesel from service station tanks, through the fill pipes.”

“Cal, who are you talking to?”

“Hey I recognize that voice.”

“When did you hear it?”

“The day we got nuked, a Lady called to warn me of the attack. I told her I would get dressed and go out front and try to catch one. Unlucky me, both warheads hit Edwards. The prevailing winds where we lived are out of the west 98 percent of the time and we didn’t get any radiation. I had KIO₃ and we took that, just in case.”

“Ginger, there’s someone here I’d like you to meet.”

“Ginger was the name of the Lady that called me.”

“Yeah, I know. It was my wife Ginger that called you.”

“Why?”

“I knew you didn’t watch TV very often and didn’t know if you had a weather radio with SAME.”

“Good guess. The TVs were both off and we didn’t get around to buying one of those Oregon Scientific WR602 radios. After our daughter left for work and the kids were in school, I typically went around and turned off the TVs, except for my wife’s. She didn’t typically watch TV until NCIS reruns were on USA channel.”

“Do you have any final destination in mind?”

“Fayetteville, Arkansas.”

“Why there?”

“My younger son moved there to get his PhD and when he graduated, got a job teaching Military history at the University of Arkansas, initially as an instructor and eventually as a Professor. Then, with the war, he got called up with the Arkansas National Guard.”

“So, you never got your M21 or Tac-50?”

“Nope. I claimed I had them in *Dream a Little Dream of Me*, but didn’t, in the beginning.”

“Ginger, I’d like to introduce you to Gary D. Ott aka Tired Old Man.”

“I’m pleased to meet you Ginger and you’re as pretty as your voice. Palmdale didn’t get hit because the guidance systems on the JL-2s were made in China. Both warheads hit Edwards, northeast of Palmdale.”

“Ginger, TOM never got an M21 or a Tac-50. He got a M1911A1 and a Browning Hi-Power plus a PPK in .380.”

“And you want to give him what he didn’t get. Presumably both of those rifles plus the HK416 and HK417 with grenade launchers.”

“Yes, I would with an Extended lower on the HK416.”

“I didn’t know we had those.”

“We only have a few.”

“How did you know about the Extended lower, Cal, I never published that story?”

“Which story?”

“*Dream a Little Dream of Me.*”

“I found the information about the Extended Lower on Wikipedia by reviewing AR-15 variants.”

“So did I.”

“I first got into the firearms business as a class 3 dealer and the Extended lowers were available to class 3 dealers. I bought some before I met Ginger and I doubt I ever mentioned them to her.”

“What is an Extended lower Cal?”

“Ginger an Extended lower selector has S-1-3-A positions. Combined with the HK416 they make the perfect M16/HK416.”

“Ok, give TOM one of everything and put an Extended lower on both our HK416s.”

“Cal, the M21 has the SA9102 action mounted on the McMillan M3A ladder clamp stock with a Sadlak mount, Harris bipod, Surefire suppressor, Springfield Armory leather sling, Nightforce 3.5-15x50mm scope and a Universal Night Sight, right?”

“Ran out of those and we’re using MUNS now but I can swap out the MUNS and replace it with the UNS.”

“Please do. The Tac-50 has the MUNS doesn’t it?”

“Yes, but the Elite Iron not the Jet Suppressor. The scope is the US Optics SN3 5-25x58 T-Pal.”

“The Big bucks?”

“Better scope all around.”

“What do you have for ammo?”

“The Best shooting Loaded gets Black Hills 168 grain BTHP match and the M21 Black Hills 175 grain BTHP match. We’ll give you 200 grain +P for your Kimber and PT1911B and 124 grain +P for the Browning. Do you want the Brenneke 1 $\frac{3}{8}$ ounce Black Magic slugs and Remington 15 pellet 00 and 41 pellet #4 Buck or the reduced recoil stuff?”

“The 3 inch stuff. You got the Hornady 750 grain AMAX and the Mk 211 MP ammo?”

“Yep.”

“Be still my heart. What quantities are available?”

“How about 4,000 rounds of each in .50 caliber, 6,000 rounds of each in 7.62 both weights and 5.56 62 grain; say, 1,500 rounds of each in 12 gauge and 2,500 rounds of the 9mm and 5,000 rounds of .45acp, 3 cans of HEDP in 40mm and 10 boxes of M67 plus 2 boxes of each smoke and 3 boxes each of Thermate, gas and stun. Did I miss anything?”

“Cal, run it by Ramón. What about the Cowboy guns?”

“A 24 inch and 20 inch 1886 .45-70-405 and the same lengths of 1892 in .45 Colt full power Remington loads in both calibers. A 4⁵/₈, 5¹/₂ and 7¹/₂ pre-2006 Ruger Vaquero. The .45-70-405 and .45 Colt are available in essentially unlimited quantities.”

“Just whatever quantities of Remington ammo you think is appropriate. Say you wouldn’t be able to spare any Kools 100s, Folgers classic blend and Bigelow Earl Grey would you?”

“Would 300 cans of coffee be okay and 20 cases of tea? Can’t do the Kools 100s but we have all the Kools filter kings you want. How much room do you have?”

“Probably enough, the trailer is empty.”

“I hate to burst your bubble, but with want we’ll give you, you’ll need a semi.”

“I can’t drive a semi; I can barely manage the pickup.”

“Oh, we’ll transport it for you and drop the trailer when you reach your destination. We’ll have to get a 40 foot cargo van, but that won’t be a problem.”

“I don’t know what to say. Thank you.”

“No, thank you and thanks to Jerry for keeping us entertained.”

Hank located a 40 foot cargo van and did his usual, checking the axel bearings, brakes and lubrication. Ginger directed the loading of the trailer and included a few things we hadn’t discussed, like a Diamant 525, spare parts, a flaker, a small selection of Mountain House foods and multiple pails of beans with at least 1 pail of each kind, rice, corn, oatmeal, pearl barley and the 3 kinds of wheat. She also included my original 30 quart All American pressure canner and cases of pints and quarts to fill the empty space.

John helped me fill in the Kools and found 3 cases of 100s. We didn't know if his son smoked so threw in a like quantity of Marlboros. Since we knew which firearms he'd given to his son, we included 2 HK416 Extendeds and 2 HK417s. We added the 24 inch 1886, a 20 inch 1892 and more of the ammo. We scrounged around and came up with the decent used gun leather and included it. We didn't supply horses, chickens, cattle or hogs since we were unsure of what his son had. Additional Mountain House products were substituted. But, you know, I think they probably came from Nitro Pak.

We also added ammo for his son's firearms, the 3 inch shotgun shells, 168 grain Serbian match, 200 grain Gold Dot +P, 5 bricks of .22LR and a case of .32acp 71 grain Serbian ball. If his original Loaded was the best of the 3, he could use the Black Hills in it.

When we were finally ready, Ginger hosted a going away meal of shrimp cocktail, baked potato, Caesar salad and filet. She'd noticed the he was a very light eater and selected a small filet. When I asked how he liked it, he replied, "A perfect medium."

Needless to say he enjoyed the meal immensely. He was probably the slowest eater I have ever seen and I slipped the steak and potato back in the oven to keep them warm while he enjoyed his salad and shrimp. Knowing his history, I offered him a glass of Merlot and he declined and asked for Earl Grey. *How many years has he been sober* I wondered.

"I've been sober since January 2, 1999," he stated. Could he read minds? "People often ask if I went off the wagon when the war came, you know. I surely wanted to. I realized it was death sentence due to my diabetes and didn't, regardless of how many times I was tempted. It's really the only gift I have to give my family, my legacy of sobriety. My personal goal was to outlive my father by 1 day. Hell, I achieved that years ago so I changed goals to staying sober 1 more day.

"I had a lot of mottos: Those who cannot remember the past are condemned to repeat it; Only the dead have seen the end of war; Improvise, Adapt, Overcome; Those who stand for nothing fall for anything; Would you rather have it and not need it or need it and not have it; The opry ain't over until the fat lady sings; and, so forth. I consider myself to be a Jeffersonian in my political beliefs. I've never seen a gun law I didn't want to break. What part of *shall not be infringed* can't they understand? Thank you for this exceptionally fine meal; I haven't eaten this well in years. My compliments to the chefs. Now, I need to hit the head and get some sleep. How long are the driving intervals?"

"We'll probably drive straight through to Fayetteville. However, someone will spell you so you can get some sleep in the sleeper on the Peter Car pulling the 40 foot trailer."

"Peter Car, huh. I thought my oldest son and I were the only 2 people who used that name for a Peterbilt. You don't have Kenworth's or Freightliner's?"

"No, we only have Peterbilts."

“Have you ever tried an Extended lower on a HK417?”

“No.”

“Try one, it might just work. Then if you can spare 2 more, modify the HK417s. Well... Good night, and good luck.”

“Where have I heard that before?”

“That was Edward R. Morrow’s standard closing line. They made a movie by that title that we have in our Blu-Ray collection.”

“Let me help with dishes.”

“I’ll do the dishes, you clean the grill. Aren’t you glad its ceramic coated and so easy to clean?”

“The original wasn’t and it was a bitch to clean. That’s why I had a ceramic coated grill commissioned. Believe me when I tell you, it wasn’t inexpensive. I still have the stain-less grill around somewhere.”

“I wondered about that. It was the first ceramic coated grill I’d ever seen.”

“That was quite the weekend when you came down to see if I lived in a house or something else, wasn’t it?”

“First date resulting in being married in less than a full week, I hope to tell you.”

“Any regrets?”

“Yes and no. No regrets about our marriage, children and all that followed. Yes about the catastrophes that followed. I eventually gave up counting and just prepared for the next. You know, he must really be hard of hearing; did you notice that box on a chain around his neck with small cables running to earplugs in both ears?”

“I noticed. He mentioned it in one of his stories about it being the price he paid for not protecting his hearing when shooting firearms. He developed tinnitus in his right ear that developed into deafness as he aged.”

The Dome IV – Chapter 46

“Who is taking him?”

“The mechanic will drive the tanker and another of Hanks men the semi and cargo van. The men Ramón will assign to the M1117s can drive a semi.”

“Are you going to try and fit the Extended to the HK417s?”

“I’ll run it by the gunsmith before bedtime.”

“You want to do what?”

“Fit an M4 lower to a HK417.”

“Let me see it. I think that the HK416 is an AR15 variant assault rifle, manufactured by Heckler Koch. It features an HK416 upper receiver that can fit on any M16 lower receiver without modification. How soon do you need to know?”

“Dawn tomorrow.”

“Warn security that if they hear weapons fire from inside, it will be me.”

“Right.”

Half an hour later I heard 20 round strings of 7.62 follow by 2 6 round bursts of the same followed by single shots of 20 rounds each. I stood by the door waiting for the report.

“Seems to work out ok. I’d have a military armorer check them out before I counted on them. Here are the Extended lowers and I reinstalled the original lowers, just in case they’re needed before they can be checked out. The main problem I can see is the 417 magazine wells are for 51mm cartridges as opposed to the 45mm cartridges. I have some literature from H&K that says something while the lower parts will work, you need a lower with room for the large magazine well so I included 2 of those I got for evaluation to convert the semi-auto H&K from 5.56 to 7.62. You can have ‘em for what I got in ‘em, \$400 each.”

“I’ll add \$500 each if you can have them both with Enhanced lowers by dawn.”

“Would midnight be okay? I need my sleep.”

“Ok, \$600; plus the parts you have for a total of \$1,000 each.”

“Can I use your kitchen table?”

"It's that easy?"

"Stop and think about who will usually be making the changes, soldiers in the field, typically with a Leatherman."

I wasn't so sure of that but H & K insisted that most changes could be made in the field in a few minutes. "We'll 'do a quick run through on the firing range the next morning before they leave'". I had 24 of the extended M4 lowers and we could change over 20 HK416 rifles, 2 for Ginger and me, 6 for our kids, 1 for Hank and 1 for Ramón, leaving 10 in reserve

Ramón reported that when they arrived at Fort Chaffee, the gate was locked but manned. TOM handed over his California ID card and his Patron Member NRA card. Then, he explained that he didn't have a passport, only a social security card. He was told to standby and calls were made. Eventually, his son showed up in CSM stripes.

"What are you doing here?"

Looking for someplace to hide, but I brought stuff, a 40 foot Conex of supplies. Got a spare tent?"

"What's in the Conex?"

"Coffee, tea, cigarettes, some food, ammo and ordnance."

"Ok have them drop the Conex over there out in the open. Are they staying?"

"Nope."

"Where Sharon?"

"Dead."

"Lorrie and Amy?"

"I don't know and I don't care. Ever get a scope mount, rings and a silencer for 'Baby'?"

"Nope."

"You have them now plus weapons for a few more people."

"You been looting again?"

"Nope, straight out gifts. Only the pickup, trailer, a new wheelchair with extras and a couple of miscellaneous firearms are salvage. Is it okay if they leave?"

“Yeah, sorry.”

“Thanks for bringing my old man. Have a safe trip back fellas.”

Those were the long and short versions of our experience with TOM. His powered wheelchair was in the trailer with 4 drums of stabilized gas to power the PowerBoss which was also in the trailer. There were several batteries for the wheelchair and he even had a box of spare parts. Someone, maybe his neighbor, had fashioned a rifle rack and mounted it to the back. It was mostly empty when he showed up and full when he left. What were the odds that we had the parts to adapt an Extended lower to a HK416, a million to one? It's just shame we didn't have the parts to convert the HK417.

Wait a minute, he did it at our kitchen table and it didn't really amount to much more than changing the sear and selector. So, I asked if he could take the parts out of the Extended lowers and switch the HK417 lowers to Extended types. He said no problem and it took longer to collect the HK417s than it took him to make the conversions.

The Dome IV – Epilog

The ranch had many more adventures after TOM visited, but no more catastrophes. It took about 3 more years before the country was in good enough condition to hold elections. None of the remainder of the Bush family had political aspirations and that dynasty ended. I've never heard of either candidate for President and Ginger and I acted like many Americans and didn't bother to vote.

We did end up with 9 grandchildren, too. The canal between the first and second 6 sections was filled in and the berm used to refill it. We moved the towers to 1 mile apart and put the Gatling guns up after treating them with Cosmoline. After covering the state of Arizona and nearby states, we had enough gas, diesel and propane tanked to last through our children's lifetimes and probably well into our grandchildren's lifetimes.

We had many apply for jobs but selected few. Veterans got a preference and married veterans with good family lives got better preferences; also, being bi-lingual in Spanish added to the preference. Being a member of the Pima tribe added to the preference but not as much as being bi-lingual. That one was called the Ira Hayes preference. Being a 1st generation German was at the top of our no hire criteria. We had others although the list is too long to post. Liberal came after 1st generation Germans and we wouldn't hire anyone from the states with previously bad gun laws.

TOM said he might finish *Dream a Little Dream of Me*, or not, he wasn't sure.

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